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# **Gloucestershire Minerals Local Plan Site Options and Draft Policy Framework Consultation Document**

## **Sustainability Appraisal including Strategic Environmental Assessment**

Final Report  
Prepared by LUC  
May 2014

**Project Title:** Gloucestershire Minerals Local Plan Site Options and Draft Policy Framework Consultation Document Sustainability Appraisal

**Client:** Gloucestershire County Council

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Sustainability Appraisal including Strategic Environmental Assessment

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# 1 Introduction

- 1.1 This Sustainability Appraisal Report has been prepared by LUC, on behalf of Gloucestershire County Council (the Council) as part of the integrated Sustainability Appraisal (SA) and Strategic Environmental Assessment (SEA) of the Gloucestershire Minerals Local Plan.
- 1.2 This report relates to the Gloucestershire Minerals Local Plan Site Options and Draft Policy Framework Consultation Document (June 2014) (hereafter referred to as the "MLP Consultation Document") and it should be read in conjunction with that document.
- 1.3 Gloucestershire County Council (GCC) as Minerals Planning Authority (MPA) and Waste Planning Authority (WPA) has been working on a Minerals & Waste Development Framework (MWDF) that will replace its currently adopted Minerals Local Plan and Waste Local Plan. GCC adopted its Waste Core Strategy in November 2012. The County Council prioritised the Waste Core Strategy over the Mineral Core Strategy (MCS) in light of advice from the Government Office for the South West (GOSW). The National Planning Policy Framework (NPPF)<sup>1</sup> now advises (paragraph 156) that planning authorities should produce Local Plans and that a series of separate Development Plan Documents should only be produced where justified. Therefore, GCC is now producing the Minerals Local Plan (formerly the Minerals Core Strategy). Below is a list of the mineral related documents that have been produced in earlier stages:
  - MCS Issues and Options consultation September 2006 - designed to generate public debate on mineral issues facing the county and to seek out possible ways of resolving them.
  - MCS Preferred Options consultation January 2008 - involved setting out the 'direction of travel' for the planning framework and core policies.
- 1.4 The preparation of the Minerals Local Plan is subject to a full Sustainability Appraisal (SA), in line with the Planning and Compulsory Purchase Act 2004 and current Government planning policy (the NPPF). The preparation of the Minerals Local Plan must also be in accordance with the requirements of European Directive 2001/42/EC (known as the Strategic Environment Assessment, or SEA Directive).
- 1.5 This Sustainability Appraisal Report has been prepared to provide key stakeholders and members of the public with information on the process and the findings of the Sustainability Appraisal undertaken in preparing the MLP Consultation Document (June 2014). In particular, this report documents the likely significant sustainability implications of implementing the Gloucestershire Minerals Local Plan.

## Sustainability Appraisal and Strategic Environmental Assessment

- 1.6 The purpose of Sustainability Appraisal is to promote sustainable development by integrating sustainability considerations in to the preparation and adoption of plans.
- 1.7 Sustainability Appraisal (SA) is a statutory requirement of the Planning and Compulsory Purchase Act 2004. It is designed to ensure that the Development Plan Document (DPD) preparation process maximises the contribution that a plan makes to sustainable development and minimises any potential adverse impacts. The SA process appraises the likely social, environmental and economic effects of the strategies and policies within a DPD (in this case the Gloucestershire MLP) from the outset of its development.
- 1.8 Strategic Environmental Assessment (SEA) is also a statutory assessment process, required under the SEA Directive<sup>2</sup>, transposed in the UK by the SEA Regulations (Statutory Instrument 2004, No 1633). The SEA Regulations require the formal assessment of plans and programmes which are

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<sup>1</sup> DCLG (March, 2012). National Planning Policy Framework.

<sup>2</sup> SEA Directive 2001/42/EC

likely to have significant effects on the environment, and set the framework for future consent of projects requiring Environmental Impact Assessment (EIA)<sup>3</sup>. The purpose of SEA, as defined in Article 1 of the SEA Directive is 'to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans....with a view to promoting sustainable development'.

- 1.9 SEA and SA are separate processes but have similar aims and objectives. Simply put, SEA focuses only on the likely environmental effects of a plan whilst SA includes a wider range of considerations, extending to social and economic impacts. The Government's Sustainability Appraisal guidance<sup>4</sup> outlines how it is possible to satisfy both requirements by undertaking a joint SA/SEA process, and to present an SA report that incorporates the requirements of the SEA Regulations.
- 1.10 **Table 1.1** signposts how the requirements of the SEA Directive have been met within this SA report.

**Table 1.1 Requirements of the SEA Directive and where these have been addressed in this SA Report**

| SEA Directive Requirements                                                                                                                                                                                                                                                                                                                             | Where covered in this SA report                                                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Preparation of an environmental report in which the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and geographical scope of the plan or programme, are identified, described and evaluated. The information to be given is (Art. 5 and Annex I): |                                                                                                                                                       |
| a) An outline of the contents, main objectives of the plan or programme, and relationship with other relevant plans and programmes                                                                                                                                                                                                                     | Chapters 2 and 3 provide an outline of the main objectives of the MLP, Appendix 3 outlines its relationship with other relevant plans and programmes. |
| b) The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme                                                                                                                                                                                                       | Chapter 3 and Appendix 4.                                                                                                                             |
| c) The environmental characteristics of areas likely to be significantly affected                                                                                                                                                                                                                                                                      | Chapters 3 and 5, and Appendix 4.                                                                                                                     |
| d) Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC.                                                                                           | Chapter 3.                                                                                                                                            |
| e) The environmental protection, objectives, established at international, Community or national level, which are relevant to the plan or programme and the way those objectives and any environmental, considerations have been taken into account during its preparation                                                                             | Appendix 3.                                                                                                                                           |

<sup>3</sup> Under EU Directives 85/337/EEC and 97/11/EC concerning EIA.

<sup>4</sup> DCLG (2014) Planning Practice Guidance. Available at: <http://planningguidance.planningportal.gov.uk/blog/guidance/strategic-environmental-assessment-and-sustainability-appraisal/strategic-environmental-assessment-and-sustainability-appraisal-and-how-does-it-relate-to-strategic-environmental-assessment/>

| SEA Directive Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Where covered in this SA report                                                                                                                                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| f) The likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors. (Footnote: These effects should include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects) | Chapter 5 and Appendices 5 and 6.                                                                                                                                 |
| g) The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme;                                                                                                                                                                                                                                                                                                                             | Chapter 5 and Appendices 5 and 6.                                                                                                                                 |
| h) An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information;                                                                                                                                                                                                                                  | Chapter 2 and Appendix 2.                                                                                                                                         |
| i) a description of measures envisaged concerning monitoring in accordance with Art. 10;                                                                                                                                                                                                                                                                                                                                                                                                           | Chapter 6.                                                                                                                                                        |
| j) a non-technical summary of the information provided under the above headings                                                                                                                                                                                                                                                                                                                                                                                                                    | A separate non-technical summary document has been produced to accompany this SA report.                                                                          |
| The report shall include the information that may reasonably be required taking into account current knowledge and methods of assessment, the contents and level of detail in the plan or programme, its stage in the decision-making process and the extent to which certain matters are more appropriately assessed at different levels in that process to avoid duplication of the assessment (Art. 5.2)                                                                                        | Addressed throughout this SA report.                                                                                                                              |
| <b>Consultation:</b><br><ul style="list-style-type: none"> <li>authorities with environmental responsibility, when deciding on the scope and level of detail of the information which must be included in the environmental report (Art. 5.4)</li> </ul>                                                                                                                                                                                                                                           | Consultation on the SA Scoping Report for the Gloucestershire MLP was undertaken in 2013.                                                                         |
| <ul style="list-style-type: none"> <li>authorities with environmental responsibility and the public, shall be given an early and effective opportunity within appropriate time frames to express their opinion on the draft plan or programme and the accompanying environmental report before the adoption of the plan or programme (Art. 6.1, 6.2)</li> </ul>                                                                                                                                    | Consultation has been undertaken in relation to each stage of the Minerals Local Plan preparation, accompanied by SA reports and notes as described in Chapter 2. |
| <ul style="list-style-type: none"> <li>other EU Member States, where the implementation of the plan or programme is likely to have significant effects on the environment of that country (Art. 7).</li> </ul>                                                                                                                                                                                                                                                                                     | N/A                                                                                                                                                               |
| <b>Taking the environmental report and the results of the consultations into account in decision-making (Art. 8)</b>                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                   |

| SEA Directive Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Where covered in this SA report                                                                                                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Provision of information on the decision:</b><br/>When the plan or programme is adopted, the public and any countries consulted under Art.7 must be informed and the following made available to those so informed:</p> <ul style="list-style-type: none"> <li>the plan or programme as adopted</li> <li>a statement summarising how environmental considerations have been integrated into the plan or programme and how the environmental report of Article 5, the opinions expressed pursuant to Article 6 and the results of consultations entered into pursuant to Art. 7 have been taken into account in accordance with Art. 8, and the reasons for choosing the plan or programme as adopted, in the light of the other reasonable alternatives dealt with; and</li> <li>the measures decided concerning monitoring (Art. 9)</li> </ul> | To be addressed after the Minerals Local Plan is adopted.                                                                                                                       |
| <p><b>Monitoring</b> of the significant environmental effects of the plan's or programme's implementation (Art. 10)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Chapter 6                                                                                                                                                                       |
| <p><b>Quality assurance:</b> environmental reports should be of a sufficient standard to meet the requirements of the SEA Directive (Art. 12).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | This report has been produced in line with current guidance and good practice for SEA/SA and this table demonstrates where the requirements of the SEA Directive have been met. |

## Background

- 1.11 Gloucestershire County Council (GCC) began undertaking SA work for the MWDF 'in-house' in terms of both the development of the SA Framework and the production of SA Reports. **Table 1.2** below sets out the SA Reports that have been produced by GCC and LUC to date as part of the development of the SPD on Waste Minimisation in Development Projects (adopted in September 2006), the Waste Core Strategy (adopted in November 2012) and the Minerals Local Plan. All of the reports produced to date are available on GCC's website<sup>5</sup>. Those SA reports specifically relevant to the Minerals Local Plan have been highlighted in bold.

**Table 1.2: SA Reports produced to date for the MWDF by Gloucestershire County Council**

| SA Document                                                    | Date                                                                            |
|----------------------------------------------------------------|---------------------------------------------------------------------------------|
| Original SA Framework Context & Scoping Report                 | August 2005                                                                     |
| Update 1 SA Framework Context & Scoping Report                 | November 2005                                                                   |
| Update 2 SA Framework Context & Scoping Report                 | April 2006                                                                      |
| Update 3 SA Framework Context & Scoping Report                 | January 2009                                                                    |
| SA Framework Combined Context & Scoping Report for Waste Sites | July 2008 – added into Update 3 SA Framework Context & Scoping Reports Update 3 |
| <b>Update 4 SA Scoping Report</b>                              | <b>July 2013</b>                                                                |

<sup>5</sup> Available at: <http://www.gloucestershire.gov.uk/extra/article/108054/Sustainability-Appraisal-SA>



| SA Document                                                          | Date                  |
|----------------------------------------------------------------------|-----------------------|
| SA Report for Waste Minimisation in Development Projects SPD         | April 2006            |
| SA Report for the Waste Core Strategy Issues & Options               | July 2006             |
| <b>SA Report for the Minerals Core Strategy Issues &amp; Options</b> | <b>September 2006</b> |
| SA Report for the Waste Core Strategy Preferred Options              | January 2008          |
| <b>SA Report for the Minerals Core Strategy Preferred Options</b>    | <b>January 2008</b>   |
| SA Report for the Waste Core Strategy Site Options (Stage 1)         | April 2009            |
| SA Report for the Waste Core Strategy Site Options (Stage 2)         | September 2009        |
| SA Report for the Waste Core Strategy                                | November 2010         |
| SA Report Update for the Waste Core Strategy – Focused Changes       | June 2011             |

## Aim and structure of the report

- 1.12 This report is the SA/SEA report for the MLP Consultation Document (June 2014). It has been prepared in the spirit of the integrated approach to SEA and SA, and throughout the report, the abbreviation 'SA' should therefore be taken to refer to 'SA incorporating the requirements of SEA'.
- 1.13 This chapter provides an introduction to the SA of Gloucestershire MLP. The remainder of this report is structured into the following chapters:
- **Chapter 2 – Methodology**, describes the stages of the SA process and the approach used for the specific SA tasks.
  - **Chapter 3 – Sustainability context for minerals development in Gloucestershire**, summarises the MLP's relationship with other relevant plans, policy and strategies, summarises the social, economic and environmental characteristics of Gloucestershire, and identifies the key sustainability issues relating to mineral development within Gloucestershire.
  - **Chapter 4 – Sustainability Appraisal framework and assumptions**, describes the SA Framework and the assumptions used for assessing the potential sustainability effects of the MLP (including both the minerals site options and policy options).
  - **Chapter 5 – Sustainability Appraisal findings**, sets out the main findings from the SA of the Gloucestershire MLP Consultation Document (June 2014) Vision, Objectives and Site Options and Policy Options. It draws conclusions from the findings of the appraisals and makes some recommendations for the MLP to maximise the benefits of the plan and minimise any adverse effects.
  - **Chapter 6 – Monitoring**, makes recommendations regarding the approach to monitoring the significant sustainability effects of implementing the MLP.
  - **Chapter 7 – Conclusions**, summarises the key findings from the SA in terms of any significant sustainability effects predicted (positive or negative) from implementing the MLP.

## 2 Methodology

- 2.1 In addition to complying with legal requirements, the approach taken to the SA of the Gloucestershire MLP is based on current best practice and the following guidance:
- Practical Guide to the SEA Directive, Office of the Deputy Prime Minister (September 2005).
  - Sustainability Appraisal guidance included in DCLG's Plan Making Manual, Planning Advisory Service website (last updated September 2009). *Note this guidance was used for earlier stages of the SA, but has been superseded by the recent National Planning Practice Guidance published March 2014.*
  - Sustainability Appraisal guidance included in the Government's National Planning Practice Guidance website (2014)<sup>6</sup>.
- 2.2 The government guidance introduces the SA process and explains how to carry out SA as an integral part of the plan-making process. **Table 2.1** sets out the main stages of the plan-making process and shows how these correspond to the SA process.

**Table 2.1 Corresponding stages in plan making and SA**

| Local Plan Step 1: Pre-production - Evidence Gathering                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| SA stages and tasks                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |
| <p><b>Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope</b></p> <ul style="list-style-type: none"> <li>• A1: Identifying other relevant policies, plans and programmes, and sustainability objectives</li> <li>• A2: Collecting baseline information</li> <li>• A3: Identifying sustainability issues and problems</li> <li>• A4: Developing the SA Framework</li> <li>• A5: Consulting on the scope of the SA</li> </ul>                                                                |  |
| Local Plan Step 2: Production                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |
| SA stages and tasks                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |
| <p><b>Stage B: Developing and refining options and assessing effects</b></p> <ul style="list-style-type: none"> <li>• B1: Testing the Plan objectives against the SA Framework</li> <li>• B2: Developing the Plan options</li> <li>• B3: Predicting the effects of the Plan</li> <li>• B4: Evaluating the effects of the Plan</li> <li>• B5: Considering ways of mitigating adverse effects and maximising beneficial effects</li> <li>• B6: Proposing measures to monitor the significant effects of implementing the Plans</li> </ul> |  |
| <p><b>Stage C: Preparing the Sustainability Appraisal Report</b></p> <ul style="list-style-type: none"> <li>• C1: Preparing the SA Report</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                    |  |

<sup>6</sup> <http://planningguidance.planningportal.gov.uk/blog/guidance/strategic-environmental-assessment-and-sustainability-appraisal/>

|                                                                                                                                                                                                                                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Stage D: Consulting on the Draft Plan and the Sustainability Appraisal Report</b></p> <ul style="list-style-type: none"> <li>• D1: Public participation on draft Plan and the SA Report</li> <li>• D2(i): Appraising significant changes</li> </ul> |
| <p><b>Local Plan Step 3: Examination</b></p>                                                                                                                                                                                                              |
| <p>SA stages and tasks</p>                                                                                                                                                                                                                                |
| <ul style="list-style-type: none"> <li>• D2(ii): Appraising significant changes resulting from representations</li> </ul>                                                                                                                                 |
| <p><b>Local Plan Step 4 &amp; 5: Adoption and Monitoring</b></p>                                                                                                                                                                                          |
| <p>SA stages and tasks</p>                                                                                                                                                                                                                                |
| <ul style="list-style-type: none"> <li>• D3: Making decisions and providing information</li> </ul>                                                                                                                                                        |
| <p><b>Stage E: Monitoring the significant effects of implementing the Plan</b></p> <ul style="list-style-type: none"> <li>• E1: Finalising aims and methods for monitoring</li> <li>• E2: Responding to adverse effects</li> </ul>                        |

## Stage A: Scoping

- 2.3 GCC undertook the Scoping stage of the SA for the MLP in-house. The original Context Report and Scoping Report for the SA of the Gloucestershire MWDF were subject to consultation for five weeks from 25th August to 29th September 2005. As the GCC Sustainability Appraisal Scoping Report was last updated in 2009, an update on the Sustainability Appraisal Scoping Report has been required to address the work now being resumed on the MLP. GCC updated the Scoping Report early in 2013, with a final version published in July 2013<sup>7</sup>. This updated Scoping Report set out the outcomes of Tasks A2 to A5 as shown in **Table 2.1** above, i.e. it describes the baseline information and key sustainability issues for Gloucestershire in relation to minerals and waste and sets out the SA Framework (objectives) against which potential effects will be assessed.
- 2.4 Development of an SA Framework is not a requirement of the SEA Directive; however it provides a recognised way in which the likely sustainability effects of a plan or document can be described, analysed and compared. The SA Framework consists of a set of sustainability objectives which state desired outcomes<sup>8</sup>. These SA objectives are distinct from the strategic objectives of the MLP; instead the MLP's performance in terms of sustainability is appraised against the SA objectives. The SA objectives went through a series of iterations and changes based on consultation responses and responding to the content of different documents in the MWDF (e.g. the need to appraise potential waste or mineral sites in addition to general policies for minerals or waste). The development of the SA Framework which has been used for the appraisal of the MLP, including the minerals site options, is discussed further in **Chapter 4**.
- 2.5 Public and stakeholder participation is an important element of the SA and wider plan-making processes. It helps to ensure that the SA reports are robust and have due regard for all appropriate information that will support the plan in making a contribution to sustainable development. The SA Scoping Report was published for a five week consultation period with the statutory consultees under the SEA Regulations (Natural England, the Environment Agency and English Heritage). The consultation ran from 27<sup>th</sup> March to 2<sup>nd</sup> May 2013. GCC updated the Scoping Report after the consultation to address and take account of all responses received during

<sup>7</sup> Gloucestershire County Council (July 2013). Gloucestershire Minerals Local Plan, Sustainability Appraisal, Scoping Report Update 4.

<sup>8</sup> The ODPM SA Guidance explained that SA objectives should focus on outcomes, not how the outcomes will be achieved. For example, they should focus on improved biodiversity (the outcome), rather than protection of specific wildlife sites (a means to achieving it).

the consultation (see **Appendix 1** for the summary of consultation responses received and how they have been addressed). The relevant sections from the Scoping Report have been incorporated into this SA Report in order to meet the requirements of the SEA Directive (as set out in **Table 1.1**).

## Stage B: Developing and Refining Options and Assessing Effects

- 2.6 Developing options for a plan is an iterative process undertaken by the local planning authority usually involving a number of consultations with public and stakeholders. Consultation responses and the SA can help to identify where there may be other 'reasonable alternatives' to the options being considered for a plan (e.g. additional sites that may be suitable for development). The SA can also help decision makers by identifying the potential positive and negative sustainability effects of each option.
- 2.7 Regulation 12 (2) of the SEA Regulations requires that:
- "The (environmental or SA) report must identify, describe and evaluate 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"*
- 2.8 It should be noted that any alternatives considered to the plan need to be "reasonable". This implies that alternatives that are "not reasonable" do not need to be subject to appraisal. Examples include alternatives that do not meet the objectives of the plan or national policy (e.g. the NPPF), or are not within the geographical scope of the plan. In addition, the SEA Regulations do not require all reasonable alternatives to be subject to appraisal, just "reasonable alternatives".
- 2.9 It also needs to be recognised that the SEA and SA findings are not the only factors taken into account when determining a preferred option to take forward in a plan. There will often be an equal number of positive or negative effects identified for each option, such that it is not possible to 'rank' them based on sustainability performance in order to select a preferred option. Factors such as public opinion, deliverability, conformity with national policy will also be taken into account by plan-makers when selecting preferred options for their plan.

### Alternatives considered in the preparation of the MLP to date

- 2.10 The options or reasonable alternatives being considered during development of the MLP Consultation Document (June 2014) include the alternative policy approaches for the strategic policies and general development management policies, and minerals site options. While GCC has made a decision to prepare a new style MLP, there have been two previous stages of developing and refining minerals planning options as part of the earlier work on the MWDF as outlined below. **Appendix 2** sets out in more detail the audit trail of the reasonable alternatives considered and discounted by GCC for each policy area in the MLP at each stage in its development.

### Minerals Core Strategy Issues & Options (2005-2007)

- 2.11 The initial Issues and Option stage began in 2005 with the publication of a Newsletter to generate public debate and interest on minerals issues facing Gloucestershire. Evidence gathering and data collection exercises followed, along with two local stakeholder forums in July 2006. These forums sought to stimulate public interest and debate on important local issues affecting Gloucestershire's key mineral resource areas. The key topics debated included: the spatial vision and strategic objectives for the Core Strategy; the future of aggregate working across the County; and important local issues affecting communities in and around the mineral resource areas of the Cotswolds, Forest of Dean, and Upper Thames Valley.

- 2.12 The outcomes of forums were collated and views and ideas expressed were incorporated into two Issues and Options consultation papers which were published in September 2006<sup>9</sup>. Known as 'Part A' and 'Part B', these documents comprised an accessible jargon-free paper and a more detailed data and policy context paper. Both documents covered the same issues, and comprised the following sections:
- Section 1: A general introduction.
  - Section 2: A spatial portrait of Gloucestershire.
  - Section 3: Minerals planning policy background.
  - Section 4: Minerals in Gloucestershire, including information on geology, resources, sales, sites and reserves.
  - Section 5: A presentation of the issues and options -
- 2.13 Twelve key issues were identified for the MCS in Section 5 of the Issues and Options consultation paper, as follows, and each had a number of options set out for dealing with the issue:
- Issue M1: Determining the time period over which the MCS operates.
  - Issue M2: Setting an appropriate spatial vision and objectives for the MCS.
  - Issue M3: Meeting objective 1 – 'Identifying, conserving and safeguarding Gloucestershire's finite mineral resources from unnecessary sterilisation by other forms of development.'
  - Issue M4: Meeting objective 2 – 'Ensuring that appropriate provision is made to meet the local, regional and national demand for minerals from sustainable resources in Gloucestershire' (included options for crushed rock, sand and gravel, building stone, clay and coal).
  - Issue M5: Meeting objective 3 – 'Protecting where possible the natural, historic and cultural assets of Gloucestershire.'
  - Issue M6: Meeting objective 4 – 'Ensuring that mineral sites are restored to the highest possible standard that is capable of providing for a range of sustainable after-uses, and that this is done as quickly as possible.'
  - Issue M7: Meeting objective 5 – 'Securing enforceable, sound working practices that minimise the adverse impacts of mineral developments on the local communities, the local economy and environment of Gloucestershire.'
  - Issue M8: Meeting objective 6 – 'Encouraging the efficient working of mineral resources.'
  - Issue M9: Meeting objective 7 – 'Promoting the maximum use of recycled materials in preference to non-renewable primary minerals, where possible.'
  - Issue M10: Meeting objective 8 – 'Encouraging more sustainable ways of transporting minerals other than by road.'
  - Issue M11: Meeting objective 9 – 'Promoting closer working with neighbouring authorities to develop a consistent policy approach for the future working of strategic mineral resources.'
  - Issue M12: Sustainability Appraisal (SA) and Strategic Environmental Assessment (SEA)
- 2.14 The options considered for each of the key issues are listed in **Appendix 2** of this SA Report, along with a summary of the SA findings from the Issues and Options SA Report (2006), and the reasons for selecting or discounting each option to take forward to the next stage (Preferred Options).

### Minerals Core Strategy Preferred Options (2008)

- 2.15 The Minerals Core Strategy Preferred Options consultation document was published in January 2008, based on the outcomes of the Issues and Options consultation and evidence gathered. This involved setting out the 'direction of travel' for the planning framework and core policies. The

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<sup>9</sup> Gloucestershire County Council (2006). Minerals Core Strategy Issues and Options A and B. Available at: <http://www.gloucestershire.gov.uk/extra/article/107650/1-MCS-Issues--Options---COMPLETE>

document set out a spatial vision, strategic objectives, as well 14 Preferred Options for the Minerals Core Strategy policies under the following headings:

- Provision & Supply
- Reuse & Recycling
- The Environment
- People
- Reclamation
- Resource Management
- Transport

- 2.16 A public consultation on the Preferred Options version of the Minerals Core Strategy and the accompanying SA Report took place between 31<sup>st</sup> January 2008 and 13<sup>th</sup> March 2008. A number of technical evidence papers were also prepared to support the consultation<sup>10</sup>.
- 2.17 The Preferred Options set out in the 2008 Preferred Options Consultation document are listed in **Appendix 2** of this SA Report, showing how they relate to the options considered in the 2006 Issues and Options consultation document. A summary of the SA findings from the Preferred Options SA Report (2008) is also included in Appendix 2.

### **Minerals Local Plan Site Options and Draft Policy Framework Consultation Document (June 2014)**

- 2.18 This is the current stage of consultation for the new style Minerals Local Plan that GCC is preparing, and is intended to draw together the outcomes of the earlier two MCS consultation stages above, along with some new and up-to-date evidence in a format that enables further input from stakeholders prior to a draft of the plan being produced.
- 2.19 Where certain aspects of the plan have already been consulted upon in 2006 and 2008 (such as the Vision, Strategic Objectives and preferred policy options) some preferred policy approaches have been suggested in the 2014 MLP Consultation Document. However, some aspects of the plan are totally new (such as the inclusion of potential site allocations and minerals safeguarding) and these areas are presented to stakeholders as individual options in the 2014 MLP Consultation Document.
- 2.20 The 2014 MLP Consultation Document includes the following elements:

#### *Section 1 Introduction*

#### *Section 2 Spatial Strategy*

- Proposed Spatial Vision
- Proposed Strategic Priorities: 1 - 7
- Proposed Policy on Presumption in Favour of Sustainable Development

#### *Section 3 Mineral Safeguarding*

- Options for Safeguarding the Limestone Resource (four options)
- Options for Safeguarding the Sandstone Resource (five options)
- Options for Safeguarding the Sand and Gravel Resource (five options)
- Options for Safeguarding the Clay Resource (four options)
- Options for Safeguarding the Coal Resource (three options)
- Proposed Policy for Minerals Safeguarding Areas
- Proposed Standing Advice for implementation of the Policy for Mineral Safeguarding Areas

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<sup>10</sup> Available at: <http://www.gloucestershire.gov.uk/extra/article/107668/Evidence-Base-for-the-MCS>

- Proposed Safeguarding Policy for Minerals Infrastructure

#### *Section 4 Aggregate Mineral Supply*

- Strategic Policy Aim for Primary Aggregate Minerals-Meeting the Need
- Strategic Policy Aim for Primary Aggregate Minerals - Identifying Future Supply Areas
- Proposed Policy for Preferred Areas for Aggregates (includes 18 proposed site options)
- Proposed Policy for Proposals for the Working of Aggregates Outside of Preferred Areas
- Strategic Policy Aim for Alternative Aggregates

#### *Section 5 Non-Aggregate Minerals*

- Proposed Policy for Building Stone
- Proposed Policy for Brick Clay
- Proposed Policy for Engineering Clay
- Proposed Policy for Small Scale Coal Underground Mines
- Proposed Policy for Opencast Coal
- Proposed Policy for Re-working of Colliery Spoil Tips
- Proposed Policy for Conventional and Unconventional Hydrocarbons

#### *Section 6 Environmental Considerations*

- Proposed Policy for Flood Risk
- Proposed Policy for Water Quality
- Proposed Landscape Policy
- Proposed policy for Mineral Working in the Green Belt
- Proposed Policy for Biodiversity & Geodiversity
- Proposed Policy for the Historic Environment
- Proposed Development Management Criteria for the Historic Environment
- Proposed Policy for Sustainable Transport

#### *Section 7 Minerals Restoration*

- Proposed Strategic Aim for the Cotswold Water Park
- Proposed Restoration Policy
- Proposed Development Management Restoration Policy

#### *Section 8 Development Management Policies*

- Proposed Policy for Mitigation of Environmental Effects
- Proposed Policy for Ancillary Development
- Proposed Policy for Safeguarding Aerodromes
- Proposed Policy for Planning Obligations
- Proposed Policy for Borrow Pits
- Proposed Policy for Cumulative Impact
- Proposed Policy for Soils
- Proposed Policy for Public Rights of Way
- Proposed Policy for Buffer Zones

### Section 9 Implementation and Monitoring

- 2.21 Each of the proposed vision, strategic objectives, policies, strategic aims and site options have been subjected to appraisal against the SA objectives (described in Chapter 4). The findings of the appraisal are presented in **Chapter 5** of this SA Report as well as **Appendices 5 and 6**.

## Stage C: Preparing the sustainability appraisal report

- 2.22 This SA Report describes the process undertaken to date in carrying out the SA of the Gloucestershire MLP. It sets out the findings of the appraisal, highlighting any likely significant effects (both positive and negative, and taking into account the likely secondary, cumulative, synergistic, short, medium and long-term and permanent and temporary effects), making recommendations for improvements and clarifications that may help to mitigate negative effects and maximise the benefits of the plan, and outlining proposed monitoring measures.
- 2.23 Each mineral site option and policy option in the June 2014 MLP Consultation Document was assessed against each SA objective, and a judgement was made with regards to the likely effect that the site/option would have on that objective. These judgements were recorded as a colour coded symbol, as shown below in **Figure 2.1**. The sustainability effects are presented in a matrix for each policy, in **Appendices 5 and 6**, along with a brief justification of the judgement made.

**Figure 2.1 Key to symbols and colour coding used in the SA of the 2014 MLP Consultation Document**

|            |                                                                                                        |
|------------|--------------------------------------------------------------------------------------------------------|
| <b>++</b>  | The policy is likely to have a <b>significant positive</b> impact on the SA objective(s).              |
| <b>+</b>   | The policy is likely to have a <b>minor positive</b> impact on the SA objective(s).                    |
| <b>0</b>   | The policy is likely to have a <b>negligible or no impact</b> on the SA objective(s).                  |
| <b>+/-</b> | The policy is likely to have a <b>mixture of positive and negative</b> impacts on the SA objective(s). |
| <b>-</b>   | The policy is likely to have a <b>minor negative</b> impact on the SA objective(s).                    |
| <b>--</b>  | The policy is likely to have a <b>significant negative</b> impact on the SA objective(s).              |
| <b>?</b>   | It is <b>uncertain</b> what effect the policy will have on the SA objective(s).                        |

## Stage D: Consultation on the Gloucestershire Minerals Local Plan Site Options and Draft Policy Framework Consultation Document (June 2014) and this SA Report

- 2.24 GCC is inviting comments on the June 2014 MLP Consultation Document and this SA Report in advance of the formal consultation stage under Regulations 19 and 20 of the Town and Country Planning (Local Planning) (England) Regulations 2012 (Statutory Instrument 2012 No. 767).

## Stage E: Monitoring Implementation of the DPD

- 2.25 Stage E will follow adoption of the MLP. LUC has not been commissioned to undertake the SA monitoring. However, the SEA Regulations and the Government's SA Guidance require that the Sustainability Report includes a description of measures envisaged concerning monitoring. This is discussed in Chapter 6.



### 3 Sustainability context for minerals development in Gloucestershire

#### Review of Plans, Policies and Programmes

3.1 This section addresses the SEA Directive requirements in Annex I:

- (a) an outline of the contents, main objectives of the plan or programme and relationship with other relevant plans and programmes; and
- (e) the environmental protection objectives, established at international, Community or Member State level which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken account during its preparation.

#### Outline of the Gloucestershire MLP

3.2 The MLP Consultation Document (June 2014) is the next stage of consultation for the Gloucestershire MLP which will be a plan for the future development of minerals in Gloucestershire.

3.3 The MLP Consultation Document (June 2014) draws together the outcomes of earlier consultation stages along with new and up-to-date evidence. Where aspects of the plan have already been consulted upon (such as the Vision) some preferred policy approaches are suggested.

3.4 The MLP Consultation Document (June 2014) includes:

- Spatial Strategy – Outlines the Spatial Vision, developed from the drivers for change identified for the county. The Spatial Vision details GCC aspirations for the future – what an ideal picture for the county at 2030 would be in relation to minerals. From the Vision seven Strategic Priorities have been identified which will be delivered through the policies of the plan.
- Minerals Safeguarding – Options are presented for safeguarding each of the main mineral resource blocks in the county (Limestone, Sandstone, Sand and Gravel, Clay and Coal).
- Site Allocations – Sites are presented as options for potential allocations for crushed rock aggregates and sand and gravel. Although the intention by GCC is to allocate strategic sites for aggregates through the preparation and development of the MLP, at this stage these are still only options. They are proposals for consultation and therefore no decisions have been reached on these, that will take place in future stages of the MLP (as there are insufficient permitted reserves in the county to maintain the required landbanks).
- Policies – policies are proposed to replace those in the 2003 Gloucestershire Minerals Local Plan. Some of these policies are called Strategic Policy Aims which are more higher level strategic policies which sometimes require the MPA to implement rather than being intended for development management purposes. The remaining majority of the policies are intended to be used for development management purposes and cover all of the policy issues covered in the 2003 Gloucestershire Minerals Local Plan.

#### Relationship between Gloucestershire MLP and other relevant plans and programmes, including their environmental protection objectives

3.5 The Gloucestershire MLP is not prepared in isolation, being greatly influenced by other plans, policies and programmes and by broader sustainability objectives. It needs to be consistent with international and national guidance and strategic planning policies and should contribute to the goals of a wide range of other programmes and plans, such as those relating to social policy,

culture and heritage. It must also conform to environmental protection legislation and the sustainability objectives established at an international, national and regional level.

- 3.6 A review has been undertaken of the other plans, policies and programmes that are relevant to the MLP. The purpose of the review of other plans and strategies is how they will influence the preparation of the MLP and the SA. **Table 3.1** below lists relevant plans, programmes and strategies. The list is not, and cannot be exhaustive. The review has only sought to identify key documents which reflect local, regional, national and international social, economic and environmental issues. **Appendix 3** details the relationship that the following plans and policies have with the development of the MLP and the SA, and also shows how the environmental, social and economic objectives have been taken into account during preparation of the MLP and also the SA.
- 3.7 The most significant development in terms of the policy context for the MLP has been the 2012 publication of the NPPF which replaced the suite of Planning Policy Statements (PPSs) and Planning Policy Guidance (PPGs), including Minerals Policy Statements and Minerals Policy Guidance documents. The NPPF is intended to streamline national planning policy, having reduced over a thousand pages of policy down to 65 pages. A number of the replaced documents have been reviewed as part of the Lord Taylor review of planning guidance. The aim of the review was 'to support effective planning; what new or updated practice guidance should be published, with clear priorities; and what guidance should be cancelled.' This has resulted in the publication of national Planning Practice Guidance<sup>11</sup> (PPG) as a streamlined web-based resource that accompanies the NPPF. This ensures that planning practice guidance supports national planning policy. A large majority of past guidance has been included in the recently published guidance, however, many guidance documents have also been cancelled.
- 3.8 The Gloucestershire MLP must be consistent with the requirements of the NPPF, which sets out information about the purposes of local plan-making. It states that:
- 3.9 *"Local Plans must be prepared with the objective of contributing to the achievement of sustainable development. To this end, they should be consistent with the principles and policies set out in this Framework, including the presumption in favour of sustainable development."*
- 3.10 While the NPPF replaces the suite of Minerals Policy Statements, the principles for minerals planning are still retained in the NPPF including: the maintenance of landbanks for crushed rock and sand and gravel; designation of Mineral Safeguarding Areas; providing for restoration and aftercare at the earliest opportunity and to high environmental standards; and setting out environmental criteria against which planning applications will be assessed.

**Table3.1: Relevant plans, policies and documents**

| International / European                                                                             |
|------------------------------------------------------------------------------------------------------|
| EU SEA Directive                                                                                     |
| The World Summit on Sustainable Development, Johannesburg 2002 – Commitments arising from the Summit |
| EU Air Quality Framework Directives                                                                  |
| EU Seventh Environmental Action Plan                                                                 |
| EU Drinking Water Directive                                                                          |
| EU Water Framework Directive                                                                         |
| EU Bathing Water Quality Directive                                                                   |
| EU Birds and Habitats Directives (i.e. The Birds Directive (2009/147/EC) and EU Directive on the     |

<sup>11</sup> DCLG (2014). Planning Practice Guidance. Available at: <http://planningguidance.planningportal.gov.uk/>

|                                                                                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------|
| Conservation of Natural Habitats and of Wild Fauna and Flora (92/43/EEC))                                                                   |
| EU Biodiversity Strategy to 2020                                                                                                            |
| EU Management of waste from extractive industries (2006/21/EC)                                                                              |
| EU Waste Framework Directive                                                                                                                |
| IPCC's Fourth Assessment Report on Climate Change                                                                                           |
| <b>National</b>                                                                                                                             |
| National Planning Policy Framework (NPPF) (March 2012)                                                                                      |
| Planning for Freight on Inland Waterways                                                                                                    |
| DEFRA Natural Environment and Rural Communities Act 2006 – Section 41: List of Habitats and Species of Principal Importance in England 2008 |
| The Conservation of Habitats and Species Regulations 2010 (as amended)                                                                      |
| Biodiversity 2020 – A strategy for England's wildlife and ecosystem services.                                                               |
| Natural Environment White Paper                                                                                                             |
| Securing the Future: Delivering UK Sustainable Development Strategy                                                                         |
| The Air Quality Strategy for England, Scotland, Wales and Northern Ireland                                                                  |
| The UK Low Carbon Transition Plan                                                                                                           |
| Carbon Plan: Delivery our low carbon future                                                                                                 |
| A Strategy for England's Trees, Woods and Forests                                                                                           |
| The Sustainable Communities Plan                                                                                                            |
| National Trails Publication                                                                                                                 |
| A Development Plan for Marine Aggregate Extraction                                                                                          |
| Underground, Under threat – Groundwater Protection: Policy and Practice                                                                     |
| Flood and Water Management Act 2010                                                                                                         |
| Wessex Water Resources Draft Management Plan                                                                                                |
| Thames Water Resources Management Plan                                                                                                      |
| Severn Trent Water Draft Resources Management Plan                                                                                          |
| Draft Welsh Water Resources Management Plan                                                                                                 |
| Draft Bristol Water Resources Management Plan                                                                                               |
| Severn River Basin Management Plan                                                                                                          |
| Thames River Basin Management Plan                                                                                                          |
| Planning for the Supply of Natural Building Stone                                                                                           |

|                                                                                            |
|--------------------------------------------------------------------------------------------|
| Collation of the Results of The 2009 Aggregate Mineral Survey for England and Wales        |
| Climate Change Act 2008                                                                    |
| Minerals Extraction and the Historic Environment 2008                                      |
| Minerals Extraction and Archaeology: A Practice Guide 2008                                 |
| Guidance on the Managed Aggregate Supply System October 2012                               |
| <b>Regional</b>                                                                            |
| South West Nature Map                                                                      |
| <b>County &amp; Local</b>                                                                  |
| Gloucestershire Strategic Flood Risk Assessment for Minerals & Waste Development Framework |
| Gloucestershire Landscape Character Assessment                                             |
| Gloucestershire Nature Map                                                                 |
| Gloucestershire Cotswolds Geodiversity Audit & Local Geodiversity Action Plan 2005         |
| West Gloucestershire Geodiversity Audit & Local Geodiversity Action Plan (March 2008)      |
| Local Agenda 21 Strategy for a Sustainable Gloucestershire                                 |
| Gloucestershire Structure Plan Second Review (Adopted Plan)                                |
| Gloucestershire Local Transport Plan (3)                                                   |
| The Gloucestershire Economic Strategy                                                      |
| The Rural Economic Strategy for Gloucestershire                                            |
| Gloucestershire Biodiversity Framework and Delivery Plan 2010                              |
| Cotswold Water Park Biodiversity Action Plan 2007 – 2016                                   |
| Cotswold Water Park Supplementary Planning Guidance                                        |
| Pre-Submission Joint Core Strategy – Gloucester, Cheltenham Tewkesbury                     |
| Gloucester Local Plan                                                                      |
| Gloucester City Vision                                                                     |
| Tewkesbury Local Plan                                                                      |
| Tewkesbury Flood and Water Management SPD                                                  |
| Stroud Local Plan                                                                          |
| Stroud Local Development Framework                                                         |
| Stroud District Community Strategy                                                         |
| Cheltenham Local Plan                                                                      |

|                                                       |
|-------------------------------------------------------|
| Cheltenham's Community Plan                           |
| Forest of Dean Core Strategy (awaiting outcome of JR) |
| Forest of Dean Local Development Framework            |
| Forest of Dean Community Plan                         |
| Cotswold Local Plan                                   |
| Cotswold Local Development Framework                  |
| Cotswold Community Strategy                           |

## Baseline Information

- 3.11 This section addresses the SEA Directive requirements in Annex I:
- (b) the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme; and
  - (c) the environmental characteristics of areas likely to be significantly affected.
- 3.12 Baseline information provides the context for assessing the sustainability of proposals in the MLP and it provides the basis for identifying trends, predicting the likely effects of the plan and monitoring its outcomes. The requirements for baseline data vary widely, but it must be relevant to environmental, social and economic issues, be sensitive to change and should ideally relate to records which are sufficient to identify trends.
- 3.13 The baseline data focuses on key indicators which are readily available and can be updated to demonstrate the issues. The choice of baseline data has been informed by the previous stages in the SA process. Potentially a key limitation of the SA process is gaps in baseline data. Government guidance on SA takes a pragmatic view in advising that it is acceptable to have data gaps, but that the resulting risks should be documented. **Appendix 4** of this report provides an extensive discussion on the relevant baseline information for the County and in particular the role of minerals development.
- 3.14 Annex 1(f) of the SEA Directive requires data to be gathered on biodiversity, population, human health, flora, fauna, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the inter-relationship between the above factors (these are often referred to as 'SEA Topics'). As an integrated SA and SEA is being carried out, baseline information relating to other 'sustainability' topics has also been included; for example information about housing, social inclusiveness, transport, energy, minerals and economic growth.
- 3.15 **Table 3.2** describes the potential effects of minerals development on the SEA Topics and also the likely future environmental status if the Gloucestershire MLP were not prepared (in order to meet part of the requirement of Annex 1b of the SEA Directive).

**Table 3.2: Potential environmental effects of minerals development and likely future evolution of the environment in the absence of the Gloucestershire MLP**

| SEA Topic (SEA Directive 2001/42/EC Annex 1 (f)) | Potential effects of minerals and waste development & likely future environmental (or other) status in the absence of the Gloucestershire MLP                                                    |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Biodiversity, Flora, Fauna and Soil              | Gloucestershire is a highly diverse County with a great variety of wildlife reflected in the large number of sites that have international, national or local designations. Biodiversity outside |

| SEA Topic (SEA Directive 2001/42/EC Annex 1 (f)) | Potential effects of minerals and waste development & likely future environmental (or other) status in the absence of the Gloucestershire MLP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                  | <p>these areas should also not be neglected as habitats that have a linking function are very important.</p> <p>Potential negative effects are:</p> <ul style="list-style-type: none"> <li>• Impacts on ecosystem services such as flood defences, water purification, soil formation and pollination.</li> <li>• Potential loss of protected species and loss/deterioration of priority habitats.</li> <li>• Habitat deterioration loss and/or fragmentation due to land take.</li> <li>• Changes in soil conditions and or quality or loss of best and most versatile soils.</li> <li>• Changes in the quality of air and water. Pollution potential in terms of noise, vibration, light, dust, air and water pollutants.</li> <li>• Creation of barriers or obstacles affecting wildlife.</li> <li>• Changes in methods of habitat management.</li> <li>• Introduction of new species / habitats.</li> <li>• Changes in ecological balances of prey and predators.</li> <li>• Changes in patterns of human activity.</li> </ul> <p><u>Comment on the likely future environmental status in the absence of the MLP:</u></p> <p>Minerals plans aim to provide for the needs of society (i.e. minerals which we all use). But in the process there may be damage to the natural environment. However plans contain policies which aim to protect and enhance the environment. Without these plans it is more likely that environmental designations would be damaged by un-planned development which is not likely to be the most sustainable option, and the opportunity to enhance the environment, and protect and improve environmental networks would be severely limited.</p> |
| Water                                            | <p>Quarrying may have significant negative impacts on the water table and on surface water regimes. This is a particularly pertinent issue in Gloucestershire in relation to sand and gravel extraction in the Upper Thames Valley.</p> <p><u>Comment on the likely future environmental status in the absence of the MLP:</u></p> <p>In the absence of the MLP and policies aimed at the protection of the water environment, rivers, streams, lakes as well as subterranean hydrological regimes are more likely to be damaged as a result of un-regulated and environmentally insensitive development.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Air                                              | Traffic associated with mineral sites can increase dust and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| SEA Topic (SEA Directive 2001/42/EC Annex 1 (f)) | Potential effects of minerals and waste development & likely future environmental (or other) status in the absence of the Gloucestershire MLP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                  | <p>odour.</p> <p><u>Comment on the likely future environmental status in the absence of the MLP:</u></p> <p>Air quality may deteriorate in the County in the absence of policies which aim at the control and mitigation of the problem.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Climatic factors                                 | <p>Mineral products are, to a large extent, carried by road transport – emissions from which have negative impacts on the climate.</p> <p><u>Comment on the likely future environmental status in the absence of the MLP:</u></p> <p>In the absence of the MLP and specific policies aimed at combating climate change and reducing the impacts, it is likely that contributions to climate change from minerals development will not be appropriately controlled and mitigated.</p>                                                                                                                                                                                                                                          |
| Material assets                                  | <p>Minerals development may affect the value of nearby land, property or other material assets. This may also apply to land and property that lies on a lorry route. In terms of aerodromes (as material assets) there are potential safety issues related to the likelihood of birdstrike from e.g. open water created as part of mineral restoration.</p> <p>Conflicts with existing or planned infrastructure such as green infrastructure assets.</p> <p><u>Comment on the likely future status in the absence of the MLP:</u></p> <p>In the absence of the MLP there may be negative impacts, on material assets (and also safety concerns) as a result of un-regulated, un-mitigated or poorly planned development.</p> |
| Population                                       | <p>Populations may potentially be affected by mineral workings and associated transportation. Communities can be very sensitive to increases in noise, traffic levels, odour, visual impacts and other negative impacts on amenity.</p> <p><u>Comment on the likely future status in the absence of the MLP:</u></p> <p>In the absence of the MLP and appropriate policies there may be negative impacts on populations and communities as a result of un-regulated, un-mitigated or poorly planned development.</p>                                                                                                                                                                                                          |
| Human Health                                     | <p>Minerals development can have various negative impacts. Noise from quarry working or associated traffic may disturb individuals sleep patterns – causing stress.</p> <p>There is a danger that existing inequalities in health between groups in a community may be exacerbated. It may be that those with resources and influence in a community can successfully object to what they regard as undesirable development. Poorer communities may not have the means or mobilisation.</p> <p>Those at particular risk of discrimination / disadvantage or are particularly vulnerable include, poorer communities (measured</p>                                                                                             |

| SEA Topic (SEA Directive 2001/42/EC Annex 1 (f))                    | Potential effects of minerals and waste development & likely future environmental (or other) status in the absence of the Gloucestershire MLP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                     | <p>through a variety of indicators), black and minority ethnic people, people with disabilities, refugee groups, people seeking asylum, Gypsies and Travellers, single parent families; lesbian, gay, bisexual and transgender people; religious groups and carers.</p> <p>(Source: Gloucestershire NHS Primary Care Trust – August 2008).</p> <p><u>Comment on the likely future status in the absence of the MLP:</u></p> <p>In the absence of the MLP there may be negative impacts on human health as a result of un-regulated, un-mitigated or poorly planned development.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Cultural heritage including architectural & archaeological heritage | <p>Minerals sites along with ancillary development such as road construction, soil bunds and screening, processing and storage areas can potentially damage or destroy artefacts / sites of cultural and archaeological heritage. Indirect effects may include:</p> <ul style="list-style-type: none"> <li>• A reduction in the legibility of archaeological landscapes as a result of the interruption of features extending beyond the extraction area.</li> <li>• Dewatering and potential disruption to drainage regimes may damage waterlogged archaeological deposits and destroy a sites palaeo-environmental potential.</li> <li>• Subsidence or ground settlement on upstanding monuments and historic buildings.</li> <li>• Dust from workings can have a detrimental impact on historic buildings and monuments – especially if the dust particles are chemically active.</li> <li>• In the long term the setting and character of a historic monument / archaeological landscape / listed building might be affected by extraction. Apart from visual aspects, there may be a detraction of amenity resulting from the disruption of rights of way and access and increased noise and heavy traffic.</li> </ul> <p><u>Comment on the likely future status in the absence of the MLP:</u></p> <p>In the absence of the MLP and appropriate policies there may be damage to Gloucestershire’s cultural heritage (including architecture and archaeology) as a result of un-regulated, un-mitigated or poorly planned development.</p> |
| Landscape                                                           | <p>Landscapes may be damaged where a development changes the physical character of a particular area. Changes to, or the physical removal of landscape elements e.g. trees, slopes, hedges, field boundaries may change the character of the landscape and how it is experienced. Views may be damaged, both in terms of composition and extent. Potential landscape /</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |



| SEA Topic (SEA Directive 2001/42/EC Annex 1 (f))            | Potential effects of minerals and waste development & likely future environmental (or other) status in the absence of the Gloucestershire MLP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                             | <p>visual effects as a result of quarrying / landraise / landfill development may include:</p> <ul style="list-style-type: none"> <li>• Natural topography being permanently damaged.</li> <li>• Geological exposures in old disused quarries may be lost if they are backfilled.</li> <li>• Loss of hedgerows and hedgerow trees.</li> <li>• Rural character eroded as a result of operational areas, litter trapping fences, stockpiles and mounds, plant and buildings.</li> <li>• Insensitive restoration may weaken the local distinctiveness of a landscape.</li> <li>• On the positive side, mineral operations can create new landscape features such as lakes, ponds and wetlands. A good example being the Cotswold Water Park.</li> </ul> <p><u>Comment on the likely future status in the absence of the MLP:</u></p> <p>In the absence of the MLP and appropriate policies there may be damage to valued landscapes within Gloucestershire as a result of un-regulated, un-mitigated or poorly planned development.</p> |
| The inter-relationship between the issues referred to above | <p>There are numerous, complex inter-relationships between all the aspects of the natural and built environment and all the other social and economic factors that have been considered.</p> <p><u>Comment on the likely future status in the absence of the MLP:</u></p> <p>In the absence of the MLP and appropriate policies, development may cause unforeseen damage or produce knock-on negative impacts as a result of un-regulated, un-mitigated or poorly planned development.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

## Key Sustainability Issues

3.16 This section addresses the SEA Directive requirements in Annex I:

- (d) any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as designated pursuant to Directives 79/409/EEC (the Birds Directive) and 92/43/EEC (the Habitats Directive).

3.17 The following key sustainability issues for Gloucestershire were identified by GCC in the Scoping Report update (July 2013). In order to address the SA requirements as well as SEA, social and economic issues are identified as well as environmental issues. It is a general list and certain issues are likely to have greater significance to the development of minerals policy in Gloucestershire, such as: protecting Gloucestershire's environment whilst providing minerals; the high levels of traffic congestion and associated impacts which minerals development could potentially contribute to; minerals can only be worked where they are found and this is often in what is considered to be sensitive environments; the quality of mineral site restoration; and changes in landscape character.

**Table 3.3: Key sustainability issues in Gloucestershire**

| No. | Sustainability Issues                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | <p><b>Relatively high house prices in the County</b></p> <p>Gloucestershire is a relatively expensive place to live, with some districts and areas clearly much more expensive than others. Generally it is the high prices in the Cotswolds that keeps the average high. The average price of a house in Gloucestershire in 2012 was £174,876 compared to the UK average in 2012 of £163,376. House prices have begun to increase since early 2010.</p>                                                                                                                                                                                                                                                                                                                                   |
| 2   | <p><b>Low average income:</b></p> <p>In 2011 the average County income was £26,871, over £1000 lower than the national average. However the average income in Tewkesbury and Cheltenham were well above the national average, Gloucester was well below (ASHE/ONS 2011).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 3   | <p><b>High crime levels in some areas</b></p> <p>The following are in the Top 10% nationally most deprived wards in terms of crime and disorder (2010): <i>Cheltenham</i> – All Saints 3, Hesters Way 1-4, Pitville 3&amp;4, Spingbank 2, St Mark's 1, St Pauls 2&amp;3, St Peter's 1&amp;4. <i>Gloucester</i> – Barnwood 3, Barton and Tredworth 1 2 5-7, Kingsholm and Wotton 3, Matson and Robinswood 2, Moreland 1 3 7, Podsmead 1, Westgate 1 3. <i>Stroud</i> – Central.</p>                                                                                                                                                                                                                                                                                                         |
| 4   | <p><b>Poor health in some areas / amongst certain groups</b></p> <p>There are pockets of health related deprivation in Gloucester, Cheltenham and the Forest of Dean where life expectancy is lower than the rest of the county. All age, all cause mortality, early death rates from heart disease and stroke and from cancer are lower than the England rates and falling.</p>                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5   | <p><b>High levels of traffic congestion and associated impacts</b></p> <p>The busiest routes in the County with over 1000 HGVs in a 24 hour working day are, sections of the A40, A417, M50, M5, A46, A438, A435, A4311. There is a trend that the number of vehicle kms is increasing year on year in the County.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 6   | <p><b>The performance of the rural economy</b></p> <p>Various pressures on the rural economy and rural communities as outlined in 'The Rural Economic Strategy for Gloucestershire'.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 7   | <p><b>Areas of deprivation and social exclusion</b></p> <p>According to Government Indices of Deprivation there are significant pockets of deprivation in the County mainly in the urban areas of Gloucester and Cheltenham. The Indices of Deprivation are made up of 7 domains: Income; Employment; Health deprivation and disability; Education, Skills and Training deprivation; Barriers to Housing and Services; Crime and Living Environment. These are combined to give the Index of Multiple Deprivation. For Gloucestershire the ID2010 Super Output Areas in the national top 10% (i.e. in the worst 10%) are: <i>Cheltenham</i> – St Pauls 2, St Marks 1, Hesters Way 1. <i>Gloucester</i> – Podmead 1, Matson and Robinswood 1, Kingsholm and Wotton 3, Westgate 1&amp;3.</p> |
| 8   | <p><b>Potential for flooding</b></p> <p>A very serious issue in Gloucestershire. High potential in some areas of the County as outlined in Gloucestershire's SFRA. The summer 2007 flood events resulted in 5,000 homes and businesses being flooded and many communities were cut off.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

| No. | Sustainability Issues                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9   | <p><b>Issues with mineral site restoration</b></p> <p>There are issues over the general quality of mineral site restoration and also problematic issues in the Cotswold Water Park regarding wet restoration and 'bird strike' issues in relation to the proximity of RAF Fairford. There are a number of specific issues that need to be considered in regards to the Cotswold Water Park – protection and enhancement of existing sites, consideration of the whole environment, the need for a more coherent approach to restoration and after use, ensuring that environmental priorities are considered for the lifetime of a quarrying operation, need for an ecosystems services approach to balance the differing/conflicting needs of biodiversity and people.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 10  | <p><b>Difficulties in terms of protecting Gloucestershire's environment whilst providing minerals needed by society</b></p> <p>Minerals can only be worked where they are found and this is often in what is considered to be sensitive environments. In Gloucestershire the two principle limestone resource areas, the Forest of Dean and the Cotswolds are designated as Special Landscape Areas and AONB.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 11  | <p><b>Relatively low levels of renewable energy generation</b></p> <p>Gloucestershire's renewable electricity and heat capacity has slowly increased over the years. In 2012 the Renewable Survey by RegenSW indicated the following capacities 25.522MWe and 18.845MWth.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 12  | <p><b>The general state of Gloucestershire's biodiversity, the condition of SSSIs / sites protected under the Habitat's Directive / locally designated sites</b></p> <p>Detailed information on the general state of biodiversity in Gloucestershire can be found in the latest Gloucestershire Biodiversity Framework and Delivery Plan at:<br/> <a href="http://gloucestershirebiodiversity.net/actionplan/index.php">http://gloucestershirebiodiversity.net/actionplan/index.php</a></p> <p>There are 10 International/European sites in and close to Gloucestershire. There are possible threats to them from minerals development although they are protected by law through the Habitat Regulations Assessment (HRA) process. A process which GCC is undertaking as part of plan preparation.</p> <p>The most recent condition of SSSI survey (Natural England, 1 August 2013) showed that 95.18% of the county's SSSIs were meeting the 'Public Service Agreement' targets.</p> <p>Special consideration should be had to bat populations within the Wye Valley and Forest of Dean SAC. This area has 26% of the national population of the Lesser Horseshoe Bat and 6% of the Greater Horseshoe Bat.</p> |
| 13  | <p><b>Decline in species biodiversity - in particular of certain bird species in Gloucestershire</b></p> <p><i>Biodiversity decline:</i> The priority species on the English list relevant to Gloucestershire are referenced on the Gloucestershire Biodiversity website at:<br/> <a href="http://gloucestershirebiodiversity.net/actionplan/priority-species.php">http://gloucestershirebiodiversity.net/actionplan/priority-species.php</a></p> <p><i>Bird populations:</i></p> <p>Over a 40 year period in Gloucestershire there had been a decline in 22 species, 15 species increased in number, 3 species were lost and there were 2 new species.</p> <p>Source: Gloucestershire Environment Partnership. State of the Natural Environment Report 2011.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 14  | <p><b>Increases in serious pollution incidents</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

| No. | Sustainability Issues                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     | <p>No figures specifically relating to Gloucestershire but (at least) 1 serious incident in September 2006 = Chemical fire in Andoversford area in Cheltenham. January 2004 = Explosion at Lithium battery factory in Tewkesbury. November 2000 = serious fire at CSG waste transfer station in Sandhurst Lane Gloucester.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 15  | <p><b>Water quality and quantity</b></p> <p>Gloucestershire is within the Severn Vale Catchment. The water quality within the County is not yet meeting 'good' ecological status in regards the Water Framework Directive. Only 7% of rivers and lakes within the county have good ecological and chemical status.</p> <p>Source: Severn River Basin Management Plan</p> <p>A particular issue in terms of water quantity is the over-abstraction of water from the River Severn.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 16  | <p><b>Potential for damage to the historic environment</b></p> <p>Scheduled Ancient Monuments in Gloucestershire = 602. Conservation Areas = 287 covering 6233 ha. Number of listed buildings = 13,432. Other archaeological sites structures and buildings = 24,962</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 17  | <p><b>Detrimental changes in landscape character</b></p> <p>There are three Areas of Outstanding Natural Beauty (AONB) in the County and other important areas many of which are outlined in the Gloucestershire Landscape Character Assessment available at:</p> <p><a href="http://www.gloucestershire.gov.uk/extra/article/109519/Landscape-Character-Assessments">www.gloucestershire.gov.uk/extra/article/109519/Landscape-Character-Assessments</a></p> <p>There is the potential for minerals development to contribute to detrimental changes in landscape character in the County and plans should endeavour to minimise impacts as much as possible.</p> <p>The Gloucestershire Nature Map also identifies four Natural Areas in which the following Strategic Nature Areas (SNA) have been identified: Woodland, Unimproved Limestone Grassland, Unimproved Neutral Grassland, Lowland Wet Grassland and Heathland/Acid Grassland. Climate change represents a major threat to landscape character in the County e.g. with beech woods under particular threat from rising temperatures. More on the Gloucestershire Nature Map at:</p> <p><a href="http://www.gloucestershirebiodiversity.net/actionplan/nature-map.php">http://www.gloucestershirebiodiversity.net/actionplan/nature-map.php</a></p> |

## 4 Sustainability Appraisal framework and assumptions

### Sustainability Appraisal Framework

- 4.1 This section addresses the SEA Directive requirements in Annex I:
- (e) the environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation.
- 4.2 Development of an SA Framework is not a requirement of the SEA Directive. However, it provides a recognised way in which the likely sustainability effects of a plan can be described, analysed and compared. Once SA Objectives are developed they provide the basis for testing strategy and policy formulation of relevant aspects of the MWDF. The objectives derived from this process are the basis for identifying appropriate indicators and targets against which the success of adopted strategies and policies may be judged.
- 4.3 The SA Framework contains a number of objectives and has been developed by GCC Minerals and Waste Planning Policy officers. The original SA Framework Objectives have changed and evolved with the MWDF. There are several reasons for this:
- a. SA is an iterative and evolving process. The Framework can be regularly updated, particularly in terms of presenting up-to-date baseline data.
  - b. The SA process is a consultative one, both in terms of the MWDF documents and the SA Reports. The GCC Minerals and Waste Planning Policy team have made every effort to take on board the comments of stakeholders and to make appropriate changes.
  - c. Government guidance and planning legislation is constantly changing and being updated and the SA process has to reflect this.
- 4.4 The policies and sites included in the MLP Consultation Document (June 2014) have been appraised against the SA Objectives, which are included in **Table 4.1** below. Each objective has a number of subsidiary questions, which provide criteria when conducting assessment.

**Table 4.1: Sustainability Appraisal Objectives**

| Sustainability Appraisal Objectives and Subsidiary Questions                                                                                                                                                                                                                                                                              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Social</b>                                                                                                                                                                                                                                                                                                                             |
| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County.<br>- What are the potential health impacts on communities?<br>- What are the potential health impacts on the employees at the site or facility? |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.<br>- What are the impacts in terms of noise and vibration?<br>- To what extent are there potential landuse conflict issues?<br>- Are there any cumulative effects in terms of adverse impacts on environmental quality, social          |

| Sustainability Appraisal Objectives and Subsidiary Questions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cohesion and inclusion or economic potential?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Economic</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <p>3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.</p> <ul style="list-style-type: none"> <li>- Does the site present opportunities for spin off employment or other opportunities?</li> </ul>                                                                                                                                                                                                                                                                                                                                                       |
| <p>4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.</p> <ul style="list-style-type: none"> <li>- How many new jobs are likely to be created?</li> <li>- How far will employees have to travel to work?</li> <li>- Are there opportunities for employees to use sustainable transport?</li> </ul>                                                                                                                                                                                                                                                                 |
| <p>5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.</p> <ul style="list-style-type: none"> <li>- Is the site close to an aerodrome or low flying area?</li> <li>- Will the site or potential restoration of attract large numbers of birds?</li> </ul>                                                                                                                                                                                                                                                                                                                                      |
| <p>6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Environmental</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <p>7. To protect, conserve and enhance biodiversity in Gloucestershire.</p> <ul style="list-style-type: none"> <li>- <i>What are the potential impacts on sites which are Internationally and Nationally designated?</i></li> <li>- <i>Are there any other potential significant impacts over and above the effects on designated sites - including on irreplaceable habitats (e.g. Ancient Woodlands), local sites, protected species and habitats and species of principle importance for biodiversity?</i></li> <li>- <i>What potential is there for achieving biodiversity targets and net gains in habitats/biodiversity?</i></li> </ul> |
| <p>8. To protect, conserve and enhance the landscape in Gloucestershire.</p> <ul style="list-style-type: none"> <li>- What are the impacts on AONB?</li> <li>- What is the likely impact on specific landscape character as detailed in Gloucestershire's Landscape Character Assessment?</li> <li>- What is the scope for landscape improvement?</li> </ul>                                                                                                                                                                                                                                                                                  |
| <p>9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible.</p> <ul style="list-style-type: none"> <li>- <i>Can the existing landscape be enhanced?</i></li> <li>- <i>What restoration issues are there?</i></li> <li>- <i>What potential is there to establish coherent, resilient ecological networks?</i></li> <li>- <i>Would the restored sites contribute to the Biodiversity 2020 targets?</i></li> </ul>                                                                     |
| <p>10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.</p> <ul style="list-style-type: none"> <li>- What are the likely impacts on material, cultural and recreational assets?</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                       |

## Sustainability Appraisal Objectives and Subsidiary Questions

- Have any material assets been overlooked?

- Will the development contribute to providing traditional building materials?

11. To protect conserve and enhance geodiversity in Gloucestershire.

- What if any are the likely impacts on geodiversity?

- Will it enhance geodiversity?

12. To protect conserve and enhance townscapes and Gloucestershire's architectural and archaeological heritage.

- What are the potential adverse effects on heritage sites of International importance and / or sites or buildings with a nationally recognised designation?

- What are the impacts upon the wider historic landscape?

13. To prevent flooding, in particular preventing inappropriate development in the floodplain.

- *Can the risk of flooding be managed and reduced through site design?*

- *Will surface water runoff be sustainably managed?*

- *Is there the potential to protect and promote areas for future flood alleviation schemes?*

14. To protect and enhance soil / land quality in Gloucestershire.

- What is the landtake?

- Would it improve the soil quality?

15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.

- *What is the proximity of sensitive receptors and to what extent can air emissions, including dust be controlled?*

16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.

- *What is the proximity of vulnerable surface or groundwater and what are the likely impacts on these features?*

- *What are the impacts on water consumption?*

17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:

a) reducing the need to travel

b) promoting more sustainable means of transport e.g. by rail or water

c) sensitive lorry routing

d) the use of sustainable alternative fuels

- What is the capacity of the site and transport infrastructure to support the sustainable movement of minerals and products arising from resource recovery?

18. To reduce contributions to and to adapt to Climate Change.

- How flexible or adaptable is the site or facility in terms of a) adapting to Climate Change and b) using new technology as it develops.

## Assumptions taken into account during the SA

- 4.5 SA inevitably relies on an element of subjective judgement. In predicting and assessing the likely sustainability effects of the MLP, GCC's analysis of the characteristics of Gloucestershire and the sustainability issues it faces has been drawn on plus the professional experience of the SA team.
- 4.6 In making SA judgements for the appraisal of mineral site options and policy options included in the MLP Consultation Document (June 2014) the SA team has also used the extensive data collated and the assessments produced by GCC for each site (see GCC (2014) Site Options Evidence Paper to Support the Minerals Local Plan Site Options and Draft Policy Framework Consultation).
- 4.7 To support the appraisal of mineral site options a series of decision-making criteria for each SA headline objective was developed (this can be seen in **Table 4.2**) with the purpose of providing a consistent approach to the prediction and assessment of effects. The decision-making criteria relates specifically to the assessment of the potential sites being considered at this stage for allocation in the MLP, and set out assumptions and justifications for the level of significance of the potential effects that mineral sites developed at those sites may have. These assumptions were developed so that, where possible, quantitative data could be used to appraise the sites. Note that the assumptions and justifications included in Table 4.2 were developed prior to the publication of the National Planning Policy Guidance (March 2014) and have therefore been informed by some planning policy statements, and planning practice guidance that has been superseded by the National Planning Practice Guidance. Where referenced, former planning policy statements and planning practice guidance are still judged to be relevant.
- 4.8 It should be noted that distances from specific assets (e.g. biodiversity, heritage, recreational) used within relevant SA Objectives to predict the magnitude of potential effects of allocating the sites are for a guide only and do not mean that mineral sites within a certain distance would definitely have an effect in every instance. The potential effect depends significantly on the type and design of mineral sites eventually developed on the site, which will need to be assessed if prescribed within policies of the Minerals Local Plan or at the planning application stage.



**Table 4.2: SA Framework and Assumptions for the Gloucestershire Minerals Local Plan**

| SA Objective and Sub Questions <sup>12</sup>                                                                                                                                                                                                                                                                                                                           | Score | Justification/reasons for score                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Data sources (and limitations)                                                                                                                                                                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Social                                                                                                                                                                                                                                                                                                                                                                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                        |
| <p>1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County.</p> <p>- <i>What are the potential health impacts on communities?</i></p> <p>- <i>What are the potential health impacts on the employees at the site or facility?</i></p> |       | <p>Some minerals sites could have a minor negative effect on protecting the health of local residents, communities and visitors to the County. Dust<sup>13</sup> from blasting/ drilling and other sources within the site (e.g. haul roads, crushers, stockpiles etc.) may cause concern to residents and communities near to mineral extraction sites. However, research undertaken for the government in 1995<sup>14</sup> excluded any health effects of dust generated by surface mineral operations (i.e. sand and gravel extraction and crushed rock quarries, as opposed to underground mines). Therefore, it is not considered likely that mineral extraction in Gloucestershire would give rise to a significant negative effect on health, but minor negative effects may be experienced or perceived by some residents etc. living or working close to sites.</p> <p>Both the Technical Guidance to the NPPF<sup>15</sup> and former Annex I: Dust of Minerals Policy Statement 2, state that residents can be affected by dust up to 1km from the source, and that additional measures to control PM<sub>10</sub> might be necessary if, within a site, the actual source of emission is within 1km of any residential property or other sensitive use. However, former Annex I of Minerals Policy Statement 2 also stated that concerns about dust are most likely to be experienced near to dust sources, generally within 100m depending on site characteristics and in the absence of appropriate mitigation. The NPPF is clear that minerals planning authorities should ensure that unavoidable dust emissions are controlled and mitigated or removed at source. Therefore it is assumed that mineral extraction at any of the potential sites will be well operated and that mitigation measures implemented should be sufficient to avoid any potential health effects.</p> | <p>Visual analysis of Ordnance Survey (OS) base maps for residential areas, schools, hospitals and faith centres and information from Gloucestershire County Council's (GCC) own site assessments.</p> |
|                                                                                                                                                                                                                                                                                                                                                                        | ++    | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                        |
|                                                                                                                                                                                                                                                                                                                                                                        | +     | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                        |
|                                                                                                                                                                                                                                                                                                                                                                        | 0     | <p>Potential minerals sites which are:</p> <ul style="list-style-type: none"> <li>Over 100m from sensitive receptors (i.e. residential areas, schools, hospitals, faith centres (e.g. churches, mosques, temples))</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                        |

<sup>12</sup> From: Gloucestershire County Council. Gloucestershire Minerals Local Plan: Sustainability Appraisal – Scoping Report Update 4, July 2013.

<sup>13</sup> Dust is the generic term which BS6069 (Part 2) *Characterization of air quality Glossary* (1987) uses to describe particulate matter in the size range 1–75 µm (micrometres) in diameter. Particles that are less than or equal to (≤) 10 µm in diameter are commonly referred as PM<sub>10</sub>.

<sup>14</sup> Office of the Deputy Prime Minister (by Arup Environmental/Ove Arup and Partners). The Environmental Effects of Dust from Surface Minerals Workings, 1995.

<sup>15</sup> DCLG. Technical Guidance to the National Planning Policy Framework, March 2012.

| SA Objective and Sub Questions <sup>12</sup>                                                                                                                                                                                                                                                                                                                                                                           | Score | Justification/reasons for score                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Data sources (and limitations)                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                        |       | are expected to have no or negligible effects on health.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                                                                                                                                                                                                                                                                                                                                                                                                        | -?    | <p>Potential minerals sites which are:</p> <ul style="list-style-type: none"> <li>• Within 100m of sensitive receptors (i.e. residential areas, schools, hospitals, faith centres (e.g. churches, mosques, temples)</li> </ul> <p>could have minor negative effects on health due to the potential for dust (PM10) to have a negative effect on the health of local residents, communities and visitors to the County. Although this impact is dependent on local circumstances (such as the topography, the nature of the landscape, the respective location of the site and the nearest residential property or other sensitive use in relation to the prevailing wind direction and visibility), therefore in all cases these effects are uncertain (-?).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                                                                                                                                                                                                                                                                                                                                                                                                        | --    | N/A, as government research has excluded any health effects of dust generated by surface minerals operations such as sand and gravel and crushed rock extraction.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <p>2. To safeguard the amenity of local communities from the adverse impacts of mineral development.</p> <p>- <i>What are the impacts in terms of noise and vibration?</i></p> <p>- <i>To what extent are there potential landuse conflict issues?</i></p> <p>- <i>Are there any cumulative effects in terms of adverse impacts on environmental quality, social cohesion and inclusion or economic potential?</i></p> |       | <p>Mineral sites could have a minor negative effect on safeguarding the amenity of local residents and communities. This is because all minerals development would result in some level of noise, vibration and light pollution during site preparation, operation and restoration and associated with transport of minerals from the site. Noise and vibration from blasting/drilling and other sources within the site (e.g. haul roads, crushers, stockpiles etc.) may cause concern to residents and communities near to mineral extraction sites. Former Annex 2: Noise of Minerals Policy Statement 2 (which was superseded by the NPPF) stated that noise from surface mineral operations can have a noticeable environmental impact and is a common cause of complaint. However, research for the former Department for the Environment, Transport and the Regions (DETR) found that practice on the assessment and control of noise at surface mineral workings had improved since the publication of the earlier Minerals Planning Guidance 11 in 1993.</p> <p>The extent of noise and vibration effects on local amenity will depend on the type of mineral extracted on the site, the scale of the operations and the type of activities undertaken within the site. For example, noise and vibration may be greater near hard rock sites (e.g. crushed rock) due to the need for blasting prior to excavation, which is rarely needed at sand and gravel or clay operations.</p> <p>Additionally, potential negative effects may occur in relation to amenity if residential areas are between 100m and 1km from a potential minerals site as dust could have a nuisance effect, as highlighted under Objective 1 above.</p> <p>The NPPF is clear that minerals planning authorities should ensure that unavoidable noise, dust and particle emissions and any blasting vibrations are controlled and mitigated or removed at source, but when developing noise limits, there should be recognition that some noisy short-term activities, which may otherwise be regarded as unacceptable, are unavoidable to facilitate minerals extraction.</p> | <p>As for SA Objective 1 - visual analysis of OS base maps for residential areas, schools, hospitals and faith centres and information from GCC site assessments.</p> <p>Visual analysis of relevant Local Plan maps for areas planned for future residential development, however, the certainty of these development locations depends on the status of the Local Plan in question, i.e. how close to Adoption it is (the date and stage of each Local Plan has been</p> |

| SA Objective and Sub Questions <sup>12</sup> | Score | Justification/reasons for score                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Data sources (and limitations)                                                                                                                       |
|----------------------------------------------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                              |       | Therefore it is assumed that mineral extraction at any of the potential sites will be well operated and that mitigation measures implemented should be sufficient to avoid any potential long term amenity effects.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | referred to in the SA matrices).<br><br>GIS analysis of number of existing and potential mineral sites within 1km of existing settlement boundaries. |
|                                              |       | There could be potential for landuse conflict where minerals sites are in close proximity to areas planned for future residential development.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                      |
|                                              |       | The NPPF states that local planning authorities should take into account the cumulative effect of multiple impacts from individual sites and/or from a number of sites in a locality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                      |
|                                              | ++    | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                      |
|                                              | +     | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                      |
|                                              | 0     | <p>Potential minerals sites which are:</p> <ul style="list-style-type: none"> <li>Over 100m from sensitive receptors (i.e. residential areas, schools, hospitals, faith centres (e.g. churches, mosques, temples) including areas identified or allocated for residential development in Local Plans.</li> </ul> <p>are expected to have no or negligible effects on local amenity.</p> <p>Potential sites which are greater than 100m from an existing mineral site are not expected to have a cumulative effect on the local community.</p> <p>Potential mineral sites which are adjacent to or within 100m of an existing mineral site, but over 100m from sensitive receptors are not expected to have a cumulative effect on the local community.</p> <p>Settlements with no new potential minerals sites within 1km are not expected to experience cumulative effects from new mineral operations on the amenity of the local community.</p> |                                                                                                                                                      |
|                                              | -     | <p>Potential minerals sites which are:</p> <ul style="list-style-type: none"> <li>Within 100m of sensitive receptors (i.e. residential areas, schools, hospitals, faith centres (e.g. churches, mosques, temples) including areas identified or allocated for residential development in Local Plans.</li> </ul> <p>could have a minor negative impact on amenity, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.</p>                                                                                                                                                                                                                                                                                                                |                                                                                                                                                      |

| SA Objective and Sub Questions <sup>12</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Score                                                                                                                                                                                    | Justification/reasons for score                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Data sources (and limitations)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |    |     |   |                                                                                         |   |                                                                                                                                                                                          |   |     |    |     |                 |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                          | In addition, potential sites which are: <ul style="list-style-type: none"><li>• Within 1km from a settlement, and</li><li>• There are other existing mineral sites also within 1km of the same settlement could have a cumulative effect on the amenity of the local community.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |    |     |   |                                                                                         |   |                                                                                                                                                                                          |   |     |    |     |                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | --                                                                                                                                                                                       | N/A, as research has highlighted that effects on amenity (e.g. noise) are improving and can be controlled, mitigated or removed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |    |     |   |                                                                                         |   |                                                                                                                                                                                          |   |     |    |     |                 |
| Economic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |    |     |   |                                                                                         |   |                                                                                                                                                                                          |   |     |    |     |                 |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.<br><br>- Does the site present opportunities for spin off employment or other opportunities?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                          | <table><tr><td colspan="2">The <u>location</u> of mineral sites is unlikely to affect the promotion of sustainable economic development in Gloucestershire, as it is unlikely that new sites will encourage further investment and growth in the industry.</td></tr><tr><td>++</td><td>N/A</td></tr><tr><td>+</td><td>N/A</td></tr><tr><td>0</td><td>No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that own them.</td></tr><tr><td>-</td><td>N/A</td></tr><tr><td>--</td><td>N/A</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | The <u>location</u> of mineral sites is unlikely to affect the promotion of sustainable economic development in Gloucestershire, as it is unlikely that new sites will encourage further investment and growth in the industry.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  | ++ | N/A | + | N/A                                                                                     | 0 | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that own them. | - | N/A | -- | N/A | No data needed. |
| The <u>location</u> of mineral sites is unlikely to affect the promotion of sustainable economic development in Gloucestershire, as it is unlikely that new sites will encourage further investment and growth in the industry.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |    |     |   |                                                                                         |   |                                                                                                                                                                                          |   |     |    |     |                 |
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| 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that own them. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |    |     |   |                                                                                         |   |                                                                                                                                                                                          |   |     |    |     |                 |
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| --                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | N/A                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |    |     |   |                                                                                         |   |                                                                                                                                                                                          |   |     |    |     |                 |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.<br><br>- How many new jobs are likely to be created?<br><br>- How far will employees have to travel to work?<br><br>- Are there opportunities for employees to use sustainable transport?                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                          | <table><tr><td colspan="2">All of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in a small amount of job creation for local people in both rural and urban areas. However, job creation is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant. Future employees of potential mineral sites are unlikely to use sustainable transport to travel to work due to the predominant rural location of most mineral sites.</td></tr><tr><td>++</td><td>N/A</td></tr><tr><td>+</td><td>All sites are expected to have a minor positive effect on increasing employment levels.</td></tr><tr><td>0</td><td>N/A</td></tr><tr><td>-</td><td>N/A</td></tr><tr><td>--</td><td>N/A</td></tr></table> | All of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in a small amount of job creation for local people in both rural and urban areas. However, job creation is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant. Future employees of potential mineral sites are unlikely to use sustainable transport to travel to work due to the predominant rural location of most mineral sites. |  | ++ | N/A | + | All sites are expected to have a minor positive effect on increasing employment levels. | 0 | N/A                                                                                                                                                                                      | - | N/A | -- | N/A | No data needed. |
| All of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in a small amount of job creation for local people in both rural and urban areas. However, job creation is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant. Future employees of potential mineral sites are unlikely to use sustainable transport to travel to work due to the predominant rural location of most mineral sites. |                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |    |     |   |                                                                                         |   |                                                                                                                                                                                          |   |     |    |     |                 |
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| +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | All sites are expected to have a minor positive effect on increasing employment levels.                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |    |     |   |                                                                                         |   |                                                                                                                                                                                          |   |     |    |     |                 |
| 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | N/A                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |    |     |   |                                                                                         |   |                                                                                                                                                                                          |   |     |    |     |                 |
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| --                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | N/A                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |    |     |   |                                                                                         |   |                                                                                                                                                                                          |   |     |    |     |                 |
| 5. To ensure that mineral sites do not compromise the safety of commercial or                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                          | Mineral extraction sites that are restored to open water can increase bird-strike risk if they are planned near commercial or military aerodromes. This is because where birds congregate in large numbers, they can provide a hazard to aircraft at locations close to aerodromes or low flying areas.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Aerodrome safeguarding areas are provided in GCC site assessments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |    |     |   |                                                                                         |   |                                                                                                                                                                                          |   |     |    |     |                 |

| SA Objective and Sub Questions <sup>12</sup>                                                                                                                                                | Score | Justification/reasons for score                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Data sources (and limitations)                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| <p>military aerodromes.</p> <p>- <i>Is the site close to an aerodrome or low flying area?</i></p> <p>- <i>Will the site or potential restoration of attract large numbers of birds?</i></p> |       | <p>The numbers and movements of some species of birds may be influenced by the distribution of mineral sites. As part of the aerodrome safeguarding procedure (ODPM Circular 1/2003) local planning authorities are required to consult aerodrome operators on proposed developments likely to attract birds. Consultation arrangements apply within safeguarded areas (which should be shown on the proposals map in the local development framework).</p> <p>This effect would only apply to sites that plan to incorporate open water restoration. The NPPF states that aviation safety should be taken into account when restoring minerals sites. The type of restoration of potential mineral sites is not known at this stage, and would need to be considered once specific proposals are made.</p> | (relating to Gloucestershire Airport and MOD Airports). |
|                                                                                                                                                                                             | ++    | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                         |
|                                                                                                                                                                                             | +     | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                         |
|                                                                                                                                                                                             | 0     | Potential minerals sites that are not within an aerodrome safeguarding area are not expected to have an effect on this objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                         |
|                                                                                                                                                                                             | -?    | <p>Potential minerals sites that are:</p> <ul style="list-style-type: none"> <li>• Within an aerodrome safeguarding area</li> </ul> <p>could have minor negative effects on the safety of commercial or military aerodromes due to the potential for birds to provide a hazard to aircraft. A ? will be used to denote uncertainty about this effect as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.</p>                                                                                                                                                                                                                           |                                                         |
|                                                                                                                                                                                             | --    | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                         |
| <p>6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.</p>               |       | <p>New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard from sterilisation by <u>non-mineral</u> development.</p>                                                                                                                                                                                                                                                                                                                                                                                             | No data needed.                                         |
|                                                                                                                                                                                             | ++    | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                         |
|                                                                                                                                                                                             | +     | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                         |
|                                                                                                                                                                                             | 0     | No effect is likely as new potential mineral sites would not be classed as inappropriate development and would therefore have no effect on this objective                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                         |
|                                                                                                                                                                                             | -     | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                         |
|                                                                                                                                                                                             | --    | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                         |

| SA Objective and Sub Questions <sup>12</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Score | Justification/reasons for score                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Data sources (and limitations)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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| <b>Environmental</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <p>7. To protect, conserve and enhance biodiversity in Gloucestershire.</p> <ul style="list-style-type: none"> <li>- <i>What are the potential impacts on sites which are Internationally and Nationally designated?</i></li> <li>- <i>Are there any other potential significant impacts over and above the effects on designated sites - including on irreplaceable habitats (e.g. Ancient Woodlands), local sites, protected species and habitats and species of principle importance for biodiversity?</i></li> <li>- <i>What potential is there for achieving biodiversity targets and net gains in habitats/biodiversity?</i></li> </ul> |       | <p>International and national sites have statutory protection through international and EU conventions (Ramsar, 1971; Bern, 1979; Bonn, 1979), directives (92/43/EC; 2009/147/EC) and national law (Wildlife and Countryside Act, 1981 as amended) and should be conserved and enhanced as outlined in the NPPF.</p> <p>Locally important sites of nature conservation should also be protected under the NPPF, and it will be necessary to consider those sites that are not afforded statutory protection but are of local importance; especially those that provide ecological connectivity. In addition, previously developed land will not be assumed to have no biodiversity value. Previously developed land that has been undisturbed for a significant period of time can in some instances have greater ecological value than 'greenfield sites'.</p> <p>Note that sites of geological interest are considered under SA Objective 11.</p> <p>The design of and restoration of mineral sites is increasingly adopting innovative practice to contribute to and enhance the natural and local environment by minimising impacts on biodiversity and providing net gains in biodiversity where possible. There may be opportunities for sites to contribute towards national and local biodiversity targets during the restoration stage of the site, supporting ecological networks surrounding the site and incorporating the use of native species and habitats to encourage biodiversity within the site. However, this would be very dependent on the exact nature and proposed design of the planned mineral site, which would not be known until the planning application stage.</p> <p>It is important to bear in mind that looking in greater detail at the effects of current and completed minerals development in the same general location of potential new minerals sites can sometimes provide greater certainty than from the SA process. This can mean that biodiversity concerns flagged up by the SA methodology may not in reality be adverse but actually provide important opportunities for beneficial outcomes (e.g. because sites are near to valued biodiversity and have the potential to enhance it). Therefore, low SA scores (e.g. significant or minor negative) for this objective highlight that a cautious approach should be taken to permitting minerals development rather than ruling it out completely.</p> | <p>GIS national datasets from Natural England's MAGIC database, plus GCC data showing Local Wildlife Sites, and information from the Council's own site assessments.</p> <p>There is no GIS data available for Priority Species and Habitats, however, the Council's site assessments by a GCC Ecologist have considered the proximity to or inclusion within the site of records of a legally protected species; known presence of a habitat or species on the English List* or with Strategic Nature Areas (SNAs) within the Gloucestershire Nature Map (version 1.1 Dec 2011)<sup>16</sup>.</p> |

<sup>16</sup> <http://gloucestershirebiodiversity.net/actionplan/nature-map.php>

| SA Objective and Sub Questions <sup>12</sup> | Score | Justification/reasons for score                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Data sources (and limitations) |
|----------------------------------------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
|                                              |       | Initially SA scores were based on analysis of spatial biodiversity data and proximity of the potential mineral site to designated nature conservation sites. However, where relevant, these scores have been reviewed to reflect information and interpretation from the GCC Ecologist regarding whether impacts are actually likely to occur on those designated nature conservation sites. This information and interpretation draws on the GCC Ecologist's local knowledge of the sites and the consideration of potential pathways/corridors between any designated sites and the minerals site, and consideration as to the potential impact of any minerals development at that site. This information is detailed in relevant site SA matrices. |                                |
|                                              | ++    | N/A – unless significant biodiversity enhancement opportunities existed through restoration of the minerals extraction site, it is not considered likely that significant positive effects would occur from minerals development at any of the sites.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                |
|                                              | +?    | Potential minerals sites for which: <ul style="list-style-type: none"> <li>The GCC assessment considers the overall impact on biodiversity is potentially uncertain/positive or neutral/positive, generally because there is unlikely to be any priority habitats or species affected, but good biodiversity enhancement opportunities exist through restoration of the site</li> </ul> could have a minor positive effect on this objective, however these effects would be uncertain as the potential for effects will depend on the exact nature and design of new sites.                                                                                                                                                                           |                                |
|                                              | 0     | Potential minerals sites for which: <ul style="list-style-type: none"> <li>The GCC assessment considers the overall impact on biodiversity is either “potentially negative, positive or uncertain”, usually because there are unlikely to be any priority habitats or species affected, and not significant enhancement opportunities</li> </ul> are not expected to affect this objective.                                                                                                                                                                                                                                                                                                                                                            |                                |
|                                              | -/+   | For some sites, mixed positive and negative scores are identified, as while there may be some impacts on biodiversity during extraction at the site, there may also be opportunities for habitat creation and enhancement during restoration of the sites.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                |
|                                              | -?    | Potential minerals sites for which: <ul style="list-style-type: none"> <li>The GCC assessment considers the overall impact on biodiversity is potentially negative or uncertain on nationally designated sites up to 1km distant, or The GCC assessment considers the site poses a risk to the water environment of any designated aquifer fed/surface water/ flood water dependent site over 1km distant</li> </ul> could have a minor negative effect on this objective, however these effects would be                                                                                                                                                                                                                                              |                                |

| SA Objective and Sub Questions <sup>12</sup>                                                                                                                                                                                                                                                                  | Score                         | Justification/reasons for score                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Data sources (and limitations)                                                                                                                                                |
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|                                                                                                                                                                                                                                                                                                               |                               | uncertain as the potential for effects will depend on the exact nature and design of new sites.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                               |
|                                                                                                                                                                                                                                                                                                               | --?                           | <p>Potential minerals sites for which:</p> <ul style="list-style-type: none"> <li>The GCC assessment considers the overall impact on biodiversity is potentially negative or uncertain on internationally designated sites up to 1km distant, or</li> <li>The GCC assessment considers the site poses a risk to the water environment of any designated aquifer fed/surface water/ flood water dependent site over 1km distant</li> </ul> <p>could have significant negative effects on this objective, however these effects would be uncertain as the potential for effects will depend on the exact nature and design of new sites.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                               |
| <p>8. To protect, conserve and enhance the landscape in Gloucestershire.</p> <p>- What are the impacts on AONB?</p> <p>- What is the likely impact on specific landscape character as detailed in Gloucestershire's Landscape Character Assessment?</p> <p>- What is the scope for landscape improvement?</p> | <p>++</p> <p>++</p> <p>0?</p> | <p>Areas of Outstanding Natural Beauty (AONB) have statutory protection through the Countryside and Rights of Way Act (2000). Over half of Gloucestershire has Area of Outstanding Natural Beauty (AONB) status. This comprises a substantial part of the Cotswolds to the east of the County, and also parts of the Wye Valley and the Malvern Hills AONBs.</p> <p>Areas of high landscape quality and the setting of settlements may be affected by the development of minerals sites. In addition, areas with poor landscape character could be enhanced through the creation of high quality restored minerals sites. However, this will not be able to be determined until the planning application stage, and will depend upon factors such as: how prominent sites are in the landscape; the level of screening; and the character of the surrounding landscape.</p> <p>Reference has been made in the GCC site assessments to relevant Landscape Character Areas each site is within, as well as a description in the General Comments section of the potential landscape and visual impacts for each site and whether or not mitigation could be achieved.</p> <p>The restoration of minerals sites is increasingly adopting innovative practice and this could have positive effects on landscape character. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage and is recorded for SA Objective 9.</p> <p>Potential minerals sites which:</p> <ul style="list-style-type: none"> <li>Are more than 1km from an AONB</li> </ul> <p>are considered unlikely to have an effect on these assets. It is uncertain whether there would be effects on local landscape character, as impacts on the landscape will depend upon factors such as how prominent sites are in the landscape, the level of screening proposed, and the character of the surrounding landscape, which has not been assessed</p> | <p>GIS national datasets from Natural England's MAGIC database, plus GCC data showing landscape character areas, and information from the Council's own site assessments.</p> |



| SA Objective and Sub Questions <sup>12</sup>                                                                                                                                                                                                                                                                                                                                                                  | Score | Justification/reasons for score                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Data sources (and limitations) |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                               |       | within the GCC assessment at this stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                |
|                                                                                                                                                                                                                                                                                                                                                                                                               | -?    | <p>Potential minerals sites which:</p> <ul style="list-style-type: none"> <li>• Are within 1km of an AONB</li> </ul> <p>could have a minor negative effect on these assets.</p> <p>In addition, where the GCC site assessment notes some potential for landscape issues there could also be a minor negative effect.</p> <p>These effects would be uncertain as a more detailed assessment would be required once proposals are known.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                |
|                                                                                                                                                                                                                                                                                                                                                                                                               | --?   | <p>Potential minerals sites which:</p> <ul style="list-style-type: none"> <li>• Are located within an AONB</li> </ul> <p>could have a significant negative effect on these assets.</p> <p>In addition, where the GCC site assessment note landscape impacts as a significant issue that would require mitigation proposals, a significant negative effect would also be recorded.</p> <p>This effect would be uncertain as a more detailed assessment would be required once proposals are known.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                |
| <p>9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible.</p> <p>- <i>Can the existing landscape be enhanced?</i></p> <p>- <i>What restoration issues are there?</i></p> <p>- <i>What potential is there to establish coherent, resilient</i></p> |       | <p>The NPPF requires that high quality restoration and aftercare of minerals sites takes place.</p> <p>The restoration of minerals sites is increasingly adopting innovative practice which has the potential to have positive effects on landscape character, biodiversity, amenity and recreation. Restoration, for example, can contribute to and enhance the natural and local environment by minimising impacts on biodiversity, supporting the delivering of green infrastructure and providing net gains in biodiversity where possible. Green infrastructure is defined by Natural England as a network of multi-functional green space, both urban and rural, which supports economic growth and regeneration, delivers a wide range of quality of life benefits, supports natural systems and biodiversity and help reduces the negative impacts of climate change. There may also be opportunities for sites to contribute towards national and local biodiversity targets. Some sites are now also adopting landscape-scale approaches to restoration, which is supported by the NPPF.</p> <p>However, the standard and extent of restoration would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> | No data needed.                |

| SA Objective and Sub Questions <sup>12</sup>                                                                                                                                                                                                                                                                                            | Score                    | Justification/reasons for score                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Data sources (and limitations)                                                                                                                                                                                                                                            |
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| <i>ecological networks?</i><br>- <i>Would the restored sites contribute to the Biodiversity 2020 targets?</i>                                                                                                                                                                                                                           | ++<br>+?<br>0<br>-<br>-- | N/A<br>The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.<br>N/A<br>N/A<br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                           |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.<br>- <i>What are the likely impacts on material, cultural and recreational assets?</i><br>- <i>Have any material assets been overlooked?</i><br>- <i>Will the development contribute to providing traditional building materials?</i> | ++<br>+                  | <p>All of the potential minerals sites could have negative effects on access to and the enjoyment of recreational facilities if they are in close proximity to the potential site, by making the recreational/cultural facilities less attractive for users or in some cases removing the access (e.g. Public Rights of Way (PRoW) and cycle routes). The potential negative effects would arise because all minerals development would result in some level of noise, traffic, and light pollution during site preparation, operations and potentially during restoration as well.</p> <p>There may be some opportunities for enhancement to footpaths/ PRoW through development of particular sites.</p> <p>Protection and conservation of heritage assets is covered under SA Objective 12 below. Aggregate sites are not likely to contribute to providing traditional building materials. Traditional stone as a building material is usually produced from building stone sites which are not being considered in the scope of the potential sites for the Gloucestershire Minerals Local Plan.</p> <p>Potential minerals sites which are:</p> <ul style="list-style-type: none"> <li>Assessed as having an opportunity for major enhancement and/or additional routes to be constructed, as identified in the GCC PRoW assessment for the site could have a significant positive effect on recreational assets in the County.</li> </ul> <p>Potential minerals sites which are:</p> <ul style="list-style-type: none"> <li>Assessed by the GCC PRoW Team as having no Public Right of Way network present, or presence of a PRoW network where there is an opportunity for the existing route to be enhanced. could have a minor positive effect on recreational assets in the County.</li> </ul> | GIS data from GCC for PRoW), plus analysis of OS base map for other types of leisure/recreational facilities and open spaces and information from GCC's site assessments (relating to PRoWs). Analysis of Sustrans Maps <sup>17</sup> will be completed for cycle routes. |

<sup>17</sup> Available at: <http://www.sustrans.org.uk/ncn/map?gclid=CIWvqcnx47kCFTIQtaodzCMACQ>

| SA Objective and Sub Questions <sup>12</sup>                                                                                                                                                  | Score | Justification/reasons for score                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Data sources (and limitations)                                                                                                                                                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                               | 0     | <p>Potential minerals sites which are:</p> <ul style="list-style-type: none"> <li>• More than 250m from a leisure or recreational facility or open space, including Rights of Way, or</li> <li>• Identified in GCC PRoW Team assessment as being a PRoW but not requiring diversion or enhancement.</li> </ul> <p>are not expected to have an effect on recreation assets in the County.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                             |
|                                                                                                                                                                                               | -     | <p>Potential minerals sites which are:</p> <ul style="list-style-type: none"> <li>• Within 250m of a leisure or recreational facility or open space, including Rights of Way, or</li> <li>• Identified by GCC PRoW Team assessment as having an impact on the PRoW network with potential diversion required.</li> </ul> <p>could have a minor negative effect on recreation activities and assets in the County by making the facilities less attractive for users.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                             |
|                                                                                                                                                                                               | --    | <p>Potential minerals sites which:</p> <ul style="list-style-type: none"> <li>• Include a leisure or recreational facility or open space, including Rights of Way, or</li> <li>• Are identified by GCC PRoW Team as having a major adverse impact on the network with potential closure required.</li> </ul> <p>could have a significant negative effect on recreation activities, as development of the sites would either mean removing part of a facility/open space, or removing or temporarily closing land which has potential for recreation/access to the countryside.</p>                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                             |
| <p>11. To protect conserve and enhance geodiversity in Gloucestershire.</p> <p>- <i>What if any are the likely impacts on geodiversity?</i></p> <p>- <i>Will it enhance geodiversity?</i></p> |       | <p>National and locally important sites of geological/geomorphological interest (SSSIs or Local Geological Sites, formally RIGS) should also be protected under the NPPF. The NPPF states that proposals for any development on or affecting geodiversity sites or landscape areas will be judged. The NPPF also states that to minimise impacts on geodiversity, planning policies should aim to prevent harm to geological interests; and local planning authorities should put in place policies so that high quality restoration and aftercare of mineral sites take place, including for geodiversity.</p> <p>Mineral sites can potentially contribute to geodiversity by preserving and conserving geological features/landscapes that contribute towards the link between people, landscape and their culture. However, due to the methods of extraction and processing, this is more likely at less intensive sites (e.g. building stone) than aggregate sites.</p> | <p>GIS data from GCC relating to RIGS/LGSs, and information from GCC's site assessments, which are based on information provided by the Gloucestershire Geology Trust at the Geological Records Centre.</p> |
|                                                                                                                                                                                               | ++    | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                             |
|                                                                                                                                                                                               | +?    | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                             |

| SA Objective and Sub Questions <sup>12</sup>                                                                                                                                                                                                                                                                                                        | Score                                                                                                                                                                                                                                                                    | Justification/reasons for score                                                                                                                                                                                                                                                                                                                                                                                                             | Data sources (and limitations)                                                                                                                                                                                                |
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|                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                          | known until the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                     | 0                                                                                                                                                                                                                                                                        | Potential minerals sites which are: <ul style="list-style-type: none"><li>More than 500m from a national site of geological interest (SSSI) or Local Geological Site</li></ul> are not expected to affect this objective.                                                                                                                                                                                                                   |                                                                                                                                                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                     | -?                                                                                                                                                                                                                                                                       | Potential minerals sites which are: <ul style="list-style-type: none"><li>Within 500m of a national site of geological interest (SSSI) or Local Geological Site</li></ul> could have a minor negative effect on this objective. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.              |                                                                                                                                                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                     | --?                                                                                                                                                                                                                                                                      | Potential minerals sites which are: <ul style="list-style-type: none"><li>Within the boundary of a national site of geological interest (SSSI) or Local Geological Site</li></ul> could have significant negative effects on this objective. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage. |                                                                                                                                                                                                                               |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.<br><br>- <i>What are the potential adverse effects on heritage sites of International importance and / or sites or buildings with a nationally recognised designation?</i><br><br>- <i>What are the impacts upon the wider historic landscape?</i> | Listed buildings have statutory protection through the Planning (Listed Buildings and Conservation Areas) Act 1990.                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                             | GIS national datasets from Natural England’s MAGIC database, plus GCC data showing landscape character areas, and information from GCC’s site assessments, which are based on information provided by GCC’s Archaeology team. |
|                                                                                                                                                                                                                                                                                                                                                     | The Ancient Monuments and Archaeological Areas Act (1979) protects monuments whose preservation is given priority over other land uses.                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                     | The NPPF requires local authorities to conserve and enhance the historic environment and states that when considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset’s conservation. |                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                     | The development of minerals sites in proximity to heritage assets could have a negative effect on the setting of these assets.                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                     | Reference has been made in the GCC site assessments to the relevant Historic Landscape Characterisation status for each site, as well as a description of the proximity to nearby heritage assets and whether or not mitigation would need to be provided.               |                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                     | ++                                                                                                                                                                                                                                                                       | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                     | +                                                                                                                                                                                                                                                                        | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                     | 0                                                                                                                                                                                                                                                                        | Potential minerals sites which are:                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                               |

| SA Objective and Sub Questions <sup>12</sup>                                                                                                                                                                                                      | Score | Justification/reasons for score                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Data sources (and limitations)                                                                    |
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|                                                                                                                                                                                                                                                   |       | <ul style="list-style-type: none"> <li>• Within or adjacent to industrial estates</li> <li>• More than 1km from a Historic Park or Garden or Registered Battlefield</li> <li>• More than 1km from a Scheduled Ancient Monument or Listed Building, or</li> <li>• More than 1km from a Conservation Area</li> </ul> are considered to have no effect on these assets.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                   |
|                                                                                                                                                                                                                                                   | -?    | Potential minerals sites which are: <ul style="list-style-type: none"> <li>• Within 1km of a Historic Park or Garden or Registered Battlefield</li> <li>• Within 1km of a Scheduled Ancient Monument or Listed Building, or</li> <li>• Within 1km of a Conservation Area</li> </ul> could have a minor negative effect on these assets.<br>In addition, where the GCC site assessment notes some potential for impacts on historic environment there could also be a minor negative effect.<br>These effects would be uncertain as a more detailed assessment would be required once proposals are known.                                                                                                                                                                                                                                                                                              |                                                                                                   |
|                                                                                                                                                                                                                                                   | --?   | Potential minerals sites which: <ul style="list-style-type: none"> <li>• Are within or adjacent to a Historic Park or Garden or Registered Battlefield</li> <li>• Have Listed Buildings or Scheduled Ancient Monuments present on site, or</li> <li>• Are located within or adjacent to a Conservation Area</li> </ul> could have a significant negative effect on these assets.<br>In addition, where the GCC site assessment notes significant potential for impacts on historic environment there could also be a significant negative effect.<br>These effects would be uncertain as a more detailed assessment would be required once proposals are known.                                                                                                                                                                                                                                        |                                                                                                   |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.<br>- <i>Can the risk of flooding be managed and reduced through site design?</i><br><br>- <i>Will surface water runoff be sustainably managed?</i> |       | Paragraphs 100-105 of the NPPF describe how Local Authorities should apply a sequential, risk based approach to the location of development to avoid where possible flood risk to people and property and manage any residual risk by: applying the Sequential Test; if necessary, applying the Exception Test; and using opportunities offered by new development to reduce the causes and impact of flooding. As stated in the technical guidance to the NPPF <sup>18</sup> , local authorities should take a sequential approach to developing in areas at risk of flooding, giving preference to locating development in Flood Zone 1, followed by Flood Zone 2 then Flood Zone 3.<br><br>Table 2 of the technical guidance to the NPPF outlines the flood risk vulnerability classification. Minerals working and processing (except sand & gravel working) are classed as less vulnerable, which | GIS data from GCC and the Environment Agency, and GCC's site assessment (relating to flood risk). |

<sup>18</sup> DCLG (March, 2012). Technical Guidance to the National Planning Policy Framework.

| SA Objective and Sub Questions <sup>12</sup>                                                                                                                       | Score | Justification/reasons for score                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Data sources (and limitations)                                                         |
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| <p>- <i>Is there the potential to protect and promote areas for future flood alleviation schemes?</i></p>                                                          |       | means that they are potentially compatible with all flood zones except for Flood Zone 3b, the functional floodplain <sup>19</sup> . Sand and gravel workings are classed as water-compatible development and are potentially suitable for all flood zones including 3b, the functional floodplain.                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                        |
|                                                                                                                                                                    |       | Some sites, which may dewater, may hold the potential to store excess water in times of heavy rain, which would be seen as a positive in terms of preventing flood risk. However, this would not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                        |
|                                                                                                                                                                    | ++    | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                        |
|                                                                                                                                                                    | +     | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                        |
|                                                                                                                                                                    | 0     | <ul style="list-style-type: none"> <li>Crushed rock sites which are partially or entirely within Flood Zones 1, 2, and 3a or</li> <li>Sand and gravel extraction sites</li> </ul> are not expected to have an effect on flood risk areas.                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                        |
|                                                                                                                                                                    | -     | <ul style="list-style-type: none"> <li>Crushed rock sites which are partially or entirely within Flood Zone 3b</li> </ul> could have a minor negative effect on flood-risk areas.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                        |
| <p>14. To protect and enhance soil / land quality in Gloucestershire.</p> <p>- <i>What is the landtake?</i></p> <p>- <i>Would it improve the soil quality?</i></p> | --    | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | GIS national datasets from Natural England's MAGIC database and GCC's site assessment. |
|                                                                                                                                                                    |       | The NPPF states that where significant development of agricultural land is demonstrated to be necessary, local planning authorities should seek to use areas of poorer quality land (4 and 5) in preference to that of a higher quality (1, 2 and 3). Furthermore, the NPPF states that local planning authorities should put in place policies to ensure that high quality restoration and aftercare of mineral sites takes place, including for agriculture (safeguarding the long term potential of best and most versatile agricultural land and conserving soil resources). In some instances, depending on the proposed restoration process agreed for sites, soils could be reused during restoration. |                                                                                        |
|                                                                                                                                                                    | ++    | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                        |
|                                                                                                                                                                    | +     | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                        |
|                                                                                                                                                                    | 0     | Potential minerals sites which are: <ul style="list-style-type: none"> <li>Not within grade 1, 2 or 3 agricultural land</li> </ul> are not expected to have an effect on protecting or enhancing soil/land quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                        |
|                                                                                                                                                                    | -     | Potential minerals sites which are: <ul style="list-style-type: none"> <li>Large (i.e. over 20 ha) and partially within grade 1, 2 or within grade 3 BMV agricultural land; or</li> <li>Small to medium (i.e. less than 20 ha) and entirely within grade 1, 2 or within grade 3 BMV agricultural land</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                        |

<sup>19</sup> Table 3 of the technical guidance to the NPPF.

| SA Objective and Sub Questions <sup>12</sup>                                                                                                                                                                                                                              | Score | Justification/reasons for score                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Data sources (and limitations)                                                                                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                           |       | could have a minor negative effect on protecting or enhancing soil/land quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                             |
|                                                                                                                                                                                                                                                                           | --    | Potential sites which are: <ul style="list-style-type: none"> <li>• Large (i.e. over 20 ha) and located entirely within grade 1 or 2 BMV agricultural land could have a significant negative effect on protecting or enhancing soil/land quality.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                             |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.<br><br>- <i>What is the proximity of sensitive receptors and to what extent can air emissions, including dust be controlled?</i> |       | <p>Proposals for all types of minerals sites could contribute to increasing air pollution in the County with regards to minerals transportation by road, as well as any air pollution associated with the operation of the sites and processes used such as dust from blasting and crushing. The type and extent of air pollution (e.g. from dust or other emissions) will depend on the type of mineral extracted on the site, the scale of the operations and the type of activities undertaken within the site. For example intensive handling of hard rocks such as crushed rock (e.g. limestone and crystalline rocks) may produce large amounts of dust due to drilling and blasting. Although softer minerals, such as sand and gravel, can crumble more easily during handling and may produce a greater number of dust particles. Furthermore, the effects of traffic related pollutants (e.g. Nitrogen Dioxide, Carbon Dioxide and Particulate Matter) may differ depending on the mineral worked at sites and the level of output. For example, crushed rock quarries typically have larger annual outputs than sand and gravel sites and may therefore involve more traffic movements within and outside of the sites.</p> <p>For certain quarry processes, dust emissions are controlled under the Environmental Permitting (England and Wales) Regulations (2010) regulated and enforced by the Environment Agency. The requirement to meet EP permitting standards (including emissions to air) should ensure that the design and operation of minerals sites minimises any potentially significant effects on human health and the environment. In addition, many sites will meet the criteria that require a site-specific environmental impact assessment to be undertaken to accompany the planning application, which would look at the potential impacts and mitigation measures in more detail, and influence the conditions placed on the planning permission.</p> <p>The sub-question relating to air quality impacts on sensitive receptors due to dust emissions from the sites themselves are already covered under the assumptions for SA Objective 1 above. The assumptions discussed below for potential effects on this objective therefore relate to air emissions from road transport of mineral only and consider the proximity of sites to the strategic highway network and Air Quality Management Areas (AQMA) identified by local authorities as areas where existing air pollution is already an issue.</p> | Analysis of OS data, plus Defra's list of AQMA locations <sup>21</sup> and the GCC's site assessments relating to highways. |

<sup>21</sup> <http://aqma.defra.gov.uk/maps.php>.

| SA Objective and Sub Questions <sup>12</sup>             | Score | Justification/reasons for score                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Data sources (and limitations)       |
|----------------------------------------------------------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
|                                                          |       | Any increases in road transport of minerals will lead to increases in local air pollution and emissions of CO <sub>2</sub> . The further vehicles transporting minerals have to travel along local roads (i.e. not on the primary road network), the higher the potential for more localised air pollution as they are likely to travel more slowly on local roads. In addition, if the mineral site is within, or vehicles are travelling through, AQMA's where existing air pollution issues have been identified, there is more potential for negative effects on air quality.                         |                                      |
|                                                          |       | The Gloucestershire Joint Technical Evidence Paper 1: Transport <sup>20</sup> states that transport is a major issue when considering proposals for mineral development, as the generation of significant amounts of road traffic can and does have negative impacts on the amenity of the local community and the environment.                                                                                                                                                                                                                                                                           |                                      |
|                                                          |       | The potential of each site to reduce the distance minerals travel by road (through the use of more sustainable transport modes) is covered under SA Objective 17 below.                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                      |
|                                                          | ++    | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                      |
|                                                          | +     | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                      |
|                                                          | 0     | Potential minerals sites which are: <ul style="list-style-type: none"> <li>• Within 1km of the strategic highway network <u>but</u> not within 1km of an AQMA</li> </ul> are expected to have a negligible impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.                                                                                                 |                                      |
| 16. To protect and enhance water quality and quantity in | -     | Potential minerals sites which are: <ul style="list-style-type: none"> <li>• Within 1km of an Air Quality Management Area (AQMA); and/or</li> <li>• More than 1km from the strategic highway network (and therefore travelling further along local roads)</li> </ul> are expected to have a minor negative impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage. | GIS data from GCC relating to Source |
|                                                          | --    | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                      |
|                                                          |       | The Water Framework Directive <sup>22</sup> applies to all surface freshwater bodies (including lakes, streams and rivers), groundwater, groundwater dependent ecosystems, estuaries and coastal waters out to                                                                                                                                                                                                                                                                                                                                                                                            |                                      |

<sup>20</sup> The Gloucestershire Minerals and Waste Core Strategies Joint Technical Evidence Paper 1: Transport (Living Draft – January 2008)

<sup>22</sup> The European Water Framework Directive into force in December 2000, and was transposed into UK law by December 2003.



| SA Objective and Sub Questions <sup>12</sup>                                                                                                                                                                                                                                                                      | Score | Justification/reasons for score                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Data sources (and limitations)                                                                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.</p> <p>- <i>What is the proximity of vulnerable surface or groundwater and what are the likely impacts on these features?</i></p> <p>- <i>What are the impacts on water consumption?</i></p> |       | <p>one mile from low-water. It aims to improve inland and coastal waters and protect them from diffuse pollution in urban and rural areas; increase the sustainable use of water as a natural resource and create better habitats for wildlife that lives in and around water.</p> <p>The extent to which a minerals site will affect ground and surface water on a potential site depends on the type of mineral worked, site design and characteristics, and the geological conditions. Mineral sites that are in Source Protection Zone (SPZ) 1 or adjacent to a water body could potentially lead to loss of contaminants or accidental pollution incidents. However, the NPPF states that local planning authorities should set out environmental criteria against which planning applications will be assessed so as to ensure that permitted operations do not have unacceptable adverse impacts on the natural environment, including from impacts on the flow and quantity of surface and groundwater and migration of contamination from sites. Furthermore, potential for adverse effects on water quality will also be assessed at the planning application stage.</p> <p>It will not be possible to assess water use and efficiency at this stage in the planning process, as it will very much depend on the proposal (mineral type, design, method of working etc), which would be assessed at the planning application stage.</p> | <p>Protection Zones, analysis of OS base maps for surface water bodies, and information within GCC's site assessments on water-related issues.</p> |
|                                                                                                                                                                                                                                                                                                                   | ++    | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                    |
|                                                                                                                                                                                                                                                                                                                   | +     | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                    |
|                                                                                                                                                                                                                                                                                                                   | 0     | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                    |
|                                                                                                                                                                                                                                                                                                                   | ?     | At this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                    |
|                                                                                                                                                                                                                                                                                                                   | -?    | Sites within SPZ1 and/or within/adjacent to a water body have the potential to have a minor negative effect. However, this effect would be uncertain as it would be very dependent on the exact nature, working and proposed design of the site.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                    |
|                                                                                                                                                                                                                                                                                                                   | --    | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                    |
|                                                                                                                                                                                                                                                                                                                   |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                    |
| <p>17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:</p> <p>a) reducing the need to travel</p> <p>b) promoting more sustainable means of</p>                                                                                                           |       | <p>All mineral sites will involve road transportation of minerals with some involving more movements than others. For example, crushed rock quarries typically have larger annual outputs than sand and gravel sites and may therefore involve more traffic movements within and outside of the sites. However, proximity to rail lines/depots/sidings, rivers/canals or wharves could provide opportunities to explore more sustainable modes of transporting waste.</p> <p>The NPPF states that plans and decisions should ensure developments that generate significant</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <p>National datasets and OS base map.</p>                                                                                                          |

| SA Objective and Sub Questions <sup>12</sup>                                                                                                                                                                                                                                        | Score | Justification/reasons for score                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Data sources (and limitations) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels<br>- <i>What is the capacity of the site and transport infrastructure to support the sustainable movement of minerals and products arising from resource recovery?</i> |       | movements can maximise the use of sustainable transport modes; and that plans should protect and exploit opportunities for the use of sustainable transport modes for the movements of goods. As discussed above under SA Objective 15, air emissions from transport of minerals are likely to have more of an effect on the environment and communities than air emissions from the facility itself, therefore, opportunities to reduce road transport of minerals would have positive effects on this objective.                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                |
|                                                                                                                                                                                                                                                                                     |       | Direct impacts of lorry traffic (i.e. noise, nuisance, safety, congestion as opposed to air pollution) on communities relates to how much access is reliant on local roads, therefore to provide some indication of this, the proximity to the strategic high network has been used to assess the potential effects on this objective. For potential sites which are closer to the strategic highway network, it is assumed that lorry traffic would spend less time on local roads, and have less of an impact on nearby communities. Where GCC’s site assessment notes that new access routes may be required, this could also have a positive effect on communities as it may reduce impact on existing local roads. Some of the sub-questions for this objective are also covered under the assumptions for SA Objectives 4 and 15 above in relation to employee transport opportunities and air quality impacts of lorries travelling on local roads. |                                |
|                                                                                                                                                                                                                                                                                     | ++    | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                |
|                                                                                                                                                                                                                                                                                     | +     | Potential sites which are: <ul style="list-style-type: none"><li>• Within 1km of the strategic highway network</li></ul> could have a minor positive effect on reducing the impacts of lorry traffic on the environment and communities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                |
|                                                                                                                                                                                                                                                                                     | 0     | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                |
|                                                                                                                                                                                                                                                                                     | -     | Potential sites which are: <ul style="list-style-type: none"><li>• More than 1km from the strategic highway network</li></ul> could have a minor negative effect on reducing the impacts of lorry traffic on the environment and communities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                |
| 18. To reduce contributions to and to adapt to Climate Change.<br><br>- <i>How flexible or adaptable is the site or facility in terms of a) adapting to Climate</i>                                                                                                                 | --    | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | No data needed.                |
|                                                                                                                                                                                                                                                                                     |       | Aggregate quarrying is energy intensive and consequently reducing energy consumption and the industry’s overall carbon footprint are important matters. Quarry operations should and do aim to be as energy efficient as possible and implement measures to offset or reduce the size of their carbon footprint, whereby some sites calculate their carbon output per tonne of product. However, it is very difficult to take carbon footprint and therefore potential contributions to and adaptations to climate change into account at this stage in the planning process; as it will depend on the information that proposed developments can provide at the application stage.                                                                                                                                                                                                                                                                        |                                |

| SA Objective and Sub Questions <sup>12</sup>              | Score | Justification/reasons for score                                                                                                                                                                                                                                              | Data sources (and limitations) |
|-----------------------------------------------------------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| <i>Change and b) using new technology as it develops.</i> | ++    | N/A                                                                                                                                                                                                                                                                          |                                |
|                                                           | +     | N/A                                                                                                                                                                                                                                                                          |                                |
|                                                           | 0     | N/A                                                                                                                                                                                                                                                                          |                                |
|                                                           | ?     | At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage. |                                |
|                                                           | -     | N/A                                                                                                                                                                                                                                                                          |                                |
|                                                           | --    | N/A                                                                                                                                                                                                                                                                          |                                |

## 5 Sustainability Appraisal Findings

- 5.1 This Chapter describes the findings of the SA of the MLP Consultation Document (June 2014) Spatial Vision, Strategic Priorities, Policies and Site Options. A detailed assessment has been undertaken, considering their likely effects against each of the SA objectives. It is difficult, however, to make assumptions on the potential for effects until full details of mineral proposals (e.g. the exact nature and design of sites) are submitted at the planning applications stage. It is also important to note that for planning applications to be permitted they will need to meet the requirements of all of the relevant policies of the MLP Consultation Document (June 2014).

### Summary of SA Findings for the Proposed Spatial Vision, Strategic Priorities and Policies

- 5.2 The MLP Consultation Document (June 2014) includes a proposed Spatial Vision for Gloucestershire in 2030, as well as seven Strategic Priorities, and a number of Proposed Policies. The SA findings for the Vision and Strategic Priorities and Proposed Policies are summarised below. The full appraisal matrices of the Proposed Policies are presented in **Appendix 5**.

#### Local Plan Proposed Spatial Vision

- 5.3 The Vision for Gloucestershire sets out a positive vision for the future which encourages sustainable economic growth as required by the NPPF, and is likely to have a positive effect on all of the SA objectives as shown in **Table 5.1**.
- 5.4 Positive effects have been identified for **social** SA objectives, as the Vision aims for Gloucestershire to be a healthy and safe place in which to live, work and visit, and to successfully contribute towards sustainable communities. The Vision also puts the amenity, health and quality of life at the core of the decision making process where mineral working takes place. This will lead to positive effects for SA objectives 1 and 2 which seek to promote sustainable development and sustainable communities, improve health and wellbeing and safeguard the amenity of local communities from the adverse effects of mineral development.
- 5.5 Contributing to local and national mineral supply by ensuring primary minerals remain an essential part of the county's mineral supply, and ensuring that local mineral resources are integral to delivering renewal, regeneration and growth in the county, should have significant positive effects on **economic** SA objectives 3 (sustainable economic development) and 4 (employment opportunities). Positive effects are likely for SA objective 5 (safety of commercial or military aerodromes) as birdstrike will be minimised at restored mineral sites. The Vision should also have positive effects on SA objective 6 (conservation of minerals resources) because although primary minerals will remain an essential part of the county's mineral supply, greater emphasis will be placed upon maximising the reuse of materials, reducing in-site waste and promoting the most appropriate use of minerals.
- 5.6 Significant positive effects are expected for many **environmental** SA objectives, including SA objectives 7 (biodiversity), 8 (landscape), 9 (restoration of mineral sites) and 11 (geodiversity). The Vision supports mineral working to act as a positive driver for the protection and enhancement of environmental assets and designations, such as the Cotswolds and Wye Valley Areas of Outstanding Natural Beauty (AONBs). The Vision seeks to ensure that the restoration of mineral sites will be delivered to a high standard, maximising after use benefits and used as a key resource for increasing biodiversity and geodiversity. It therefore supports the protection, conservation and enhancement of biodiversity, geodiversity and landscape in Gloucestershire. The Vision also supports the successful coordination of mineral management in areas such as the Upper Thame Valley, which will be crucial to successful regeneration and restoration of the landscape on that area.

- 5.7 Ensuring that Gloucestershire will be a clean, green, healthy and safe place in which to live, work and visit, and the high standard of mineral site restoration that will be provided, will support the protection and enhancement of Gloucestershire's material, cultural and recreational assets, thereby having positive effects on SA objective 10. Furthermore, ensuring specialist minerals have an important role in Gloucestershire's historic and built environment will support the character and cultural assets in the area. The expansion of knowledge of Gloucestershire's archaeological past via mineral working will also have positive effects for SA objective 12 (historic environment, heritage assets and their setting). The vision seeks to protect and enhance the quality of environmental assets, which could include soil and water quality, but as this is not specified in the wording of the vision, any positive effect on SA objectives 14 (soil quality) and 16 (water quality) is currently minor and uncertain.
- 5.8 SA objectives 15 (air quality), 17 (impacts of lorry traffic) and 18 (climate change) are supported by the Vision, as by 2030 Gloucestershire aims to be a successful contributor towards reducing the impacts of climate change, and seeks to ensure that stricter haulage routes and more efficient practices are used for the transport of minerals, which will reduce the impacts of mineral transportation on local roads and reduce vehicle emissions. By reducing the impacts of climate change, a positive effect may occur on SA objective 13 (flooding), but as the wording of the vision does not state whether climate change adaptation delivered through the MLP would involve reducing flood risk in Gloucestershire, the positive effect is currently uncertain.

### Local Plan Proposed Strategic Priorities

- 5.9 The Proposed Strategic Priorities are generally compatible with and supportive towards the SA objectives, although there is also no relationship between a number of the SA objectives and the Strategic Priorities, as shown in **Table 5.1**.
- 5.10 Strategic Priorities 1 (Reuse & Recycling), 4 (People), 5 (Reclamation) and 7 (Transport) support the promotion of sustainable development and sustainable communities, improve health and wellbeing and safeguard the amenity of local communities from the adverse effects of mineral development; thereby having minor positive effects on **social** SA objectives 1 and 2. The other three Strategic Priorities (2 (Provision & Supply), 3 (The Environment) and 6 (Resource Management)) are unlikely to affect the social SA objectives.
- 5.11 Significant positive effects are identified for **economic** SA objective 6 (conservation of minerals resources), as Strategic Priorities 1 (Reuse & Recycling) and 6 (Resource Management) support the conservation of mineral resources through the reuse and recycling of materials and effective resource management through the prevention of mineral sterilisation. Strategic Priority 2 (Provision & Supply) is also expected to have significant positive effects on SA objectives 3 (sustainable economic development) and 4 (employment opportunities), as it supports employment and economic development by ensuring that appropriate provision and supply of minerals to meet demand is maintained. Strategic Priority 2 could have mixed, minor positive and minor negative effects on SA objective 6 (conservation of minerals resources), as while resources will be worked appropriately to meet the needs of society and not exhausted unnecessarily, minerals are still a finite resource and working them will result in the resources not being available in the future.
- 5.12 Minor positive effects are expected for SA objectives 4 (employment opportunities) and 5 (Safety of commercial or military aerodromes) as a result of Strategic Priorities 4 (People), 5 (Reclamation) and 7 (Transport). These Priorities support sound and enforceable working practices which will mitigate impacts on businesses, encourage and ensure aerodrome safeguarding through mineral sites reclamation, and encourage more sustainable forms of transport and improvements to infrastructure.
- 5.13 Strategic Priorities 4 (People), 6 (Resource Management) and 7 (Transport) are unlikely to affect the majority of the **environmental** SA objectives (7 – 18). However, positive effects are identified for all environmental SA objectives from at least one of the Strategic Priorities. For example, Strategic Priorities 3 (The Environment) and 5 (Reclamation) are expected to have positive effects on the majority of environmental SA Objectives (including significant positive effects on SA objectives 7 (biodiversity), 8 (landscape), 9 (restoration of minerals sites) and 11 (geodiversity)), as they seek to conserve, protect and enhance biodiversity, landscape, geodiversity and heritage. They also seek to secure enhanced environmental standards and take

a spatial view of after use opportunities for biodiversity, geodiversity, agriculture (including safeguarding soil resources), native woodland, public access, regeneration, the historic environment, recreation and contributing towards reducing climate change impacts.

- 5.14 There are also mixed, minor positive/minor negative effects expected for many of the **environmental** SA objectives. For example, Strategic Priority 2 (Provision and Supply) may have minor negative effects on most environmental SA objectives due to the nature of impacts associated with the working of minerals (e.g. traffic, noise, land take, landscape). However, working sites may also have the potential to have positive effects on environmental SA objectives due to the mitigation they can put in place and the benefits and enhancements they can provide during working and once restored (e.g. sympathetic restoration so that sites contribute to the landscape setting, net gains in biodiversity, or by having the potential to contribute towards flood storage).

**Table 5.1: Summary of SA scores for the Proposed Spatial Vision and Strategic Priorities**

|                                                                 | Spatial Vision | 1. Reuse & Recycling | 2. Provision & Supply | 3. The Environment | 4. People | 5. Reclamation | 6. Resource Management | 7. Transport |
|-----------------------------------------------------------------|----------------|----------------------|-----------------------|--------------------|-----------|----------------|------------------------|--------------|
| <b>Social</b>                                                   |                |                      |                       |                    |           |                |                        |              |
| 1. Health and wellbeing                                         | +              | +                    | 0                     | 0                  | +         | +              | 0                      | +            |
| 2. Amenity of local communities                                 | +              | +                    | 0                     | 0                  | +         | +              | 0                      | +            |
| <b>Economic</b>                                                 |                |                      |                       |                    |           |                |                        |              |
| 3. Sustainable economic development                             | ++             | 0                    | ++                    | 0                  | 0         | +              | 0                      | 0            |
| 4. Employment opportunities                                     | ++             | 0                    | ++                    | 0                  | +         | +              | 0                      | +            |
| 5. Safety of commercial or military aerodromes                  | +              | 0                    | 0                     | 0                  | +         | +              | 0                      | 0            |
| 6. Conservation of minerals resources                           | +              | ++                   | +/-                   | 0                  | 0         | 0              | ++                     | 0            |
| <b>Environmental</b>                                            |                |                      |                       |                    |           |                |                        |              |
| 7. Biodiversity                                                 | ++             | +/-                  | +/-                   | ++                 | 0         | +              | 0                      | 0            |
| 8. Landscape                                                    | ++             | +/-                  | +/-                   | ++                 | 0         | +/-            | 0                      | 0            |
| 9. Restoration of mineral sites                                 | ++             | +                    | 0                     | 0                  | 0         | ++             | +                      | 0            |
| 10. Material, cultural and recreational assets                  | +              | 0                    | +/-                   | +                  | +         | +              | 0                      | +            |
| 11. Geodiversity                                                | ++             | 0                    | +/-                   | ++                 | 0         | +              | 0                      | 0            |
| 12. Historic environment, heritage assets and their setting     | +              | 0                    | +/-                   | +                  | 0         | +              | 0                      | 0            |
| 13. Flooding                                                    | +?             | 0                    | +/-                   | +/-                | 0         | +/-            | 0                      | 0            |
| 14. Soil / land quality                                         | +?             | +                    | +/-                   | +                  | 0         | +              | +                      | 0            |
| 15. Air quality                                                 | +              | +/-                  | +/-                   | +                  | 0         | +/-            | 0                      | +            |
| 16. Water quality and quantity.                                 | +?             | 0                    | +/-                   | +                  | 0         | +/-            | 0                      | 0            |
| 17. Impacts of lorry traffic on the environment and communities | +              | +/-                  | +/-                   | +                  | 0         | +/-            | 0                      | +            |
| 18. Climate Change                                              | +              | +/-                  | +/-                   | +                  | 0         | +              | 0                      | +            |

## Mineral Safeguarding Policies

- 5.15 There are three proposed policies relating to minerals safeguarding in the MLP Consultation Document (June 2014), covering Minerals Safeguarding Areas (MSAs), Standing Advice for implementation of the MSA Policy, and Safeguarding Minerals Infrastructure. The SA effects of these three policies are summarised in **Table 5.2**. The SA effects of the first two policies are the same, because the Standing Advice Proposed Policy simply explains that District Councils should consult the County Council on any planning application they receive for non-minerals development which falls within the boundary of a MSA or within a safeguarding zone of an ancillary minerals facility, and lists certain types of applications that are excluded from this requirement. It therefore seeks to ensure that the Policy for Mineral Safeguarding Areas is effectively implemented and adhered to, and its effects are based on the general principle of minerals safeguarding as are the effects of the Proposed Policy for MSAs.
- 5.16 Mixed minor positive/minor negative effects are expected on half of the SA objectives from the Proposed Policies for MSAs and Standing Advice, including both of the **social** objectives (1 and 2), three of the **economic** objectives (3, 4 and 5) and four of the **environmental** objectives (8, 10, 12 and 17). This is generally because the Mineral Safeguarding Areas may potentially restrict non-mineral developments that could themselves have negative effects on sensitive receptors such as communities, biodiversity, heritage assets etc. hence a minor positive effect. However, the MSAs may also lead to mineral extraction activities that could also have negative effects on sensitive receptors, hence the mixed effects identified. In addition, while employment opportunities from non-minerals development may be reduced in some cases within MSAs, they may be gained from minerals extraction in the MSAs. It must be emphasised, however, that the principle of minerals safeguarding does not mean that extraction will be automatically allowed in all areas identified as MSAs, or that non-mineral development will be prevented in these areas. Therefore most effects are uncertain, and will depend very much on the specific nature and design of proposals that come forward within MSAs, which will not be known until the planning application stage.
- 5.17 Significant positive effects are expected for SA objectives 6 (conservation of mineral resources) and 11 (geodiversity) due to the principle of safeguarding ensuring that mineral resources will be protected from unnecessary sterilisation by other development, by ensuring that minerals resources will be adequately and effectively considered in all land-use planning decisions. Due to these considerations in MSAs, geological formations may be preserved and in some instances created, depending on whether mineral extraction takes place, and this should contribute to maintaining and enhancing geodiversity.
- 5.18 Minor positive effects are identified for SA objectives 7 (biodiversity) and 9 (aftercare and restoration) as the potential restriction of non-mineral development in MSAs that would prejudice mineral workings may prevent development that could harm biodiversity. Also, areas used for mineral activity within MSAs, in the long-term, could benefit biodiversity as a result of the restoration of mineral sites. Similarly, if non-mineral developments were restricted following consideration of the proposal within the MSAs, there could be less likelihood of a development occurring that would not result in the same benefits of restoration of the area following mineral extraction. Furthermore, MSAs may lead to more mineral extraction activities (e.g. where the mineral needs to be worked before non-mineral development can take place) or the continuation of ancillary mineral facilities that could provide benefits via site restoration. Again, these effects are uncertain as the principle of minerals safeguarding does not mean that extraction will be automatically allowed in all areas identified as MSAs, or that non-mineral development will be prevented in these areas, and all effects will be site-specific and based on the nature and design of proposals that come forward within MSAs.
- 5.19 The MSA policies are not considered likely to have any effect on the remaining five environmental SA objectives: 13 (flooding), 14 (soil / land quality), 15 (air quality), 16 (water quality and quantity) and 18 (climate change).
- 5.20 The Proposed Policy on safeguarding minerals infrastructure has almost all the same effects as the MSA and Standing Advice policies, except that it is unlikely to have an effect on SA objectives 5 (aerodrome safety) or 11 (geodiversity). This is because the location and nature of the proposed minerals infrastructure to be safeguarded (Table 1 on pages 31 and 32 of the MLP Consultation Document) is unlikely to affect aerodromes in Gloucestershire, and similarly, the



nature of the infrastructure (rail heads, wharves, concrete batching plants etc.) will not contribute to or affect geodiversity.

5.21 Between four and five individual options for delineating the MSAs for the following mineral resources have also been identified in the MLP Consultation Document:

- Carboniferous and Jurassic limestones.
- Devonian and Carboniferous sandstones.
- Unconsolidated and consolidated sand and gravel.
- Carboniferous and Jurassic clays.
- Coal.

5.22 The options generally propose safeguarding the entire known resource, safeguarding parts of the resource area based on historical workings/age of geological formation/location of resource (e.g. Forest of Dean or Cotswolds etc.), safeguarding buffer zones of either 250m, 500m or 1km around existing and former quarries and other 'strategic resource areas'. These options are not intended necessarily to be alternatives to each other; instead, it is possible that the preferred option could include a combination of more than one of the options.

5.23 It is difficult to predict the SA effects of each of these options, as the same uncertainties exist with respect to whether non-minerals development proposals will come forward in these areas or if minerals extraction will occur prior to that development taking place. Therefore, the sustainability effects under any of the options are likely to be the same as described above for the MSA proposed policy, although the effects are more likely to occur within the safeguarding areas. Thus, effects may be more widespread under the options which seek to safeguard the entire resource, and particularly for those resources that cover a wider area in the County (e.g. the Jurassic limestone which covers most of the eastern half of the County). As shown on the draft Key Diagram in the MLP Consultation Document (June 2014), if all five mineral resource types were safeguarded in their entirety, a large portion of the County would be covered by MSAs, apart mainly from the area around the M5 and River Severn corridor.

**Table 5.2: Summary of SA scores for Mineral Safeguarding Policies**

|                                                                 | Proposed Policy<br>for Mineral<br>Safeguarding<br>Areas | Proposed<br>Standing Advice<br>for<br>implementation<br>of the Policy for<br>Mineral<br>Safeguarding<br>Areas | Proposed<br>Safeguarding<br>Policy for<br>Minerals<br>Infrastructure |
|-----------------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| 1. Health and wellbeing                                         | +/-?                                                    | +/-?                                                                                                          | +/-?                                                                 |
| 2. Amenity of local communities                                 | +/-?                                                    | +/-?                                                                                                          | +/-?                                                                 |
| 3. Sustainable economic development                             | ++/-                                                    | +/-                                                                                                           | ++/-                                                                 |
| 4. Employment opportunities                                     | +/-                                                     | +/-                                                                                                           | +/-                                                                  |
| 5. Safety of commercial or military aerodromes                  | +/-?                                                    | +/-?                                                                                                          | 0                                                                    |
| 6. Conservation of minerals resources                           | ++                                                      | ++                                                                                                            | ++                                                                   |
| 7. Biodiversity                                                 | +?                                                      | +?                                                                                                            | +?                                                                   |
| 8. Landscape                                                    | +/-?                                                    | +/-?                                                                                                          | +/-?                                                                 |
| 9. Restoration of mineral sites                                 | +?                                                      | +?                                                                                                            | +?                                                                   |
| 10. Material, cultural and recreational assets                  | +/-?                                                    | +/-?                                                                                                          | +/-?                                                                 |
| 11. Geodiversity                                                | ++?                                                     | ++?                                                                                                           | 0                                                                    |
| 12. Historic environment, heritage assets and their setting     | +/-?                                                    | +/-?                                                                                                          | +/-?                                                                 |
| 13. Flooding                                                    | 0                                                       | 0                                                                                                             | 0                                                                    |
| 14. Soil / land quality                                         | 0                                                       | 0                                                                                                             | 0                                                                    |
| 15. Air quality                                                 | 0                                                       | 0                                                                                                             | 0                                                                    |
| 16. Water quality and quantity.                                 | 0                                                       | 0                                                                                                             | 0                                                                    |
| 17. Impacts of lorry traffic on the environment and communities | +/-?                                                    | +/-?                                                                                                          | +/-?                                                                 |
| 18. Climate Change                                              | 0                                                       | 0                                                                                                             | 0                                                                    |

## Aggregate Minerals Supply Strategic Policy Aims and Policies

- 5.24 The SA findings for all of the Aggregate Minerals Supply Strategic Policy Aims and Policies included in Section 4 of the MLP Consultation Document (June 2014) are summarised in **Table 5.3**. These proposed Strategic Policy Aims and Policies cover:
- Strategic Policy Aim for Primary Aggregate Minerals-Meeting the Need.
  - Strategic Policy Aim for Primary Aggregate Minerals - Identifying Future Supply Areas.
  - Proposed Policy for Preferred Areas for Aggregates.
  - Proposed Policy for Proposals for the Working of Aggregates Outside of Preferred Areas.
  - Strategic Policy Aim for Alternative Aggregates.
- 5.25 Under the Proposed Policy for Preferred Areas for Aggregates, the 18 sand and gravel and crushed rock site options are presented. The site options have each been appraised (including the individual land parcels within each site option), and the findings are presented in this section of the SA Report, and **Appendix 6**.
- 5.26 The SA scores are summarised in **Table 5.3** for the above proposed strategic aims and policies, under each SA objective. There is a mix of potentially positive, negative and mixed effects arising from the policies, however, for a number of the SA objectives, negligible and no effects are expected to occur. No potentially significant positive or significant negative effects have been identified. Many of the identified effects are also uncertain, as the potential for effects will depend on the exact nature and design of sites, which would not be known until the planning application stage. Also, the proposed policies which have been identified to have potential negative effects on SA objectives will be supported by other policies within the MLP, when determining proposals, which should help to mitigate some of the negative effects identified. Furthermore, many of the policies (e.g. Proposed Policy for Preferred Areas) include criteria that need to be met and may also provide mitigation, for example: only permitting operations where the need to maintain the aggregate landbanks is demonstrated and where the key development criteria of the MLP are satisfied.

## Social Objectives

### *SA Objective 1 (Health and wellbeing) and SA Objective 2 (Amenity)*

- 5.27 Nearly all of the aggregates minerals supply strategic policy aims and policies are expected to have minor negative effects on SA objectives 1 and 2, as they support the continuation of aggregate operations within defined areas in Gloucestershire. This may therefore continue to have effects on health and wellbeing, and the local amenity of communities in Gloucestershire due to impacts such as dust from blasting/drilling and other sources (e.g. haul roads, machinery and stockpiles), vibration, noise and traffic congestion. However, planning applications will be required to meet the criteria of other proposed policies within the MLP Consultation Document, such as the Proposed Policy for Mitigation of Environmental Effects, therefore helping to mitigate the effects on communities, and on the health and wellbeing of people living and working in Gloucestershire. Furthermore, research undertaken for the government in 1995<sup>23</sup> excluded any health effects of dust generated by surface mineral operations, and research for the former Department for the Environment, Transport and the Regions (DETR) found that practice on the assessment and control of noise at surface mineral workings had improved; thereby emphasising that effects are unlikely to be greater than minor. Negligible effects are expected for the Strategic Policy Aim for Alternative Aggregates due to the smaller scale, location and less intensive nature of alternative aggregate facilities that the policy aim will support.

## Economic Objectives

### *SA Objective 3 (Economic development) and SA Objective 4 (Employment)*

- 5.28 All the aggregates minerals supply strategic policy aims and policies are expected to have minor positive effects on SA objective 3 as aggregates are important local and national resources and

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<sup>23</sup> Office of the Deputy Prime Minister (by Arup Environmental/Ove Arup and Partners). The Environmental Effects of Dust from Surface Minerals Workings, 1995.

are essential to support sustainable economic growth, and the development of aggregate operations supported by these policy aims and policies will support economic prosperity and make a positive contribution to the local and national economy. Similarly, all strategic policy aims and policies have the potential to have minor positive effects on SA objective 4, as the policy aims and policies support the supply of aggregates, which will have positive effects on increasing employment levels.

#### *SA Objective 5 (Aerodrome safety)*

- 5.29 There are three aerodrome safeguarding areas within Gloucestershire; these are for Gloucestershire Airport, RAF Fairford and RAF Brize Norton. Gloucestershire Airport is unlikely to be affected by aggregate sites or the aggregate minerals supply strategic policy aims and policies, due to its location in respect of the location of minerals sites and geological resources. However, RAF Fairford and RAF Brize Norton have the potential to be affected by sand and gravel extraction if the workings are restored to open water uses. All the aggregates minerals supply strategic policy aims and policies, apart from the Strategic Policy Aim for Alternative Aggregates, have the potential to have minor negative effects on SA objective 5 as they support the continuation of aggregate operations within defined areas in Gloucestershire to ensure that adequate and steady supplies of aggregates can meet predicted needs. This may include proposals for sand and gravel extracted in the Cotswolds Water Park which is located within and in close proximity to the safeguarding zones for RAF Fairford and RAF Brize Norton. Therefore, the strategic policy aims and policies could have minor negative effects on the safety of commercial or military aerodromes if sand and gravel is extracted in the Cotswolds Water Park area, due to the potential for birds to become a hazard to aircraft, which would be associated with restoration of sites to a form of open water use.
- 5.30 The Strategic Policy Aim for Alternative Aggregates is expected to have negligible effects on SA objective 5, as it is unlikely that alternative aggregate facilities will effect or be restored to a form of water use that may have the potential for birds to provide a hazard to aircraft.

#### *SA Objective 6 (Conservation of mineral resources)*

- 5.31 All aggregates minerals supply strategic policy aims and policies are unlikely to affect SA objective 6, as aggregate sites permitted under these policies and strategic policy aims will not be classed as inappropriate development, as they are contributing to the extraction of mineral resources, not limiting the ability to extract resources.

### **Environmental Objectives**

#### *SA Objective 7 (Biodiversity) and SA Objective 8 (Landscape)*

- 5.32 All aggregates minerals supply strategic policy aims and policies are expected to have mixed minor positive/minor negative effects on SA objectives 7 and 8, as the policies could lead to proposals that could have potential impacts on designated biodiversity sites, protected species or habitats, landscape or landscape character, or be located within landscape designations (e.g. Cotswolds AONB). However, it may be appropriate and sustainable to make provision for some aggregate extraction in some landscape designation (e.g. the Cotswolds resource area) to meet local need. The strategic policy aims and policies could also have positive effects on these SA objectives, as many sites may have the potential to achieve net gains for biodiversity during working or restoration via biodiversity enhancement opportunities that may exist, or the policies may lead to the sympathetic restoration of sites that could have positive effects on landscape character.

#### *SA Objective 9 (Mineral site restoration)*

- 5.33 All aggregates minerals supply strategic policy aims and policies have been identified to have minor positive effects on SA objective 9, as sites that come forward may have the potential to be restored to a high standard, achieving maximum after use benefits and enhancing the landscape and biodiversity.

#### *SA Objective 10 (Material, cultural and recreational assets)*

- 5.34 All aggregates minerals supply strategic policy aims and policies are expected to have negligible effects on SA objective 10, as aggregate workings determined by the policies are unlikely to meaningfully protect, conserve or enhance Gloucestershire's material, cultural or recreational assets. However, the strategic policy aims and policies could support sites which could have

potential effects on the access to and the enjoyment of recreational facilities (e.g. Public Rights of Way), although this is uncertain and may not be the case for all sites, and where there is the potential for effects upon recreation they will be temporary. (The potential effects on particular recreational assets of the proposed sand and gravel and crushed rock site options are described in **Appendix 6.**)

#### *SA Objective 11 (Geodiversity)*

- 5.35 All aggregates minerals supply strategic policy aims and policies, apart from the Strategic Policy Aim for Alternative Aggregates, are likely to have mixed minor positive/minor negative effects on SA Objective 11, as the continued or new extraction and/or processing of primary aggregate may uncover and harm geological interests. Conversely, extraction sites can also potentially contribute to geodiversity by preserving and conserving geological features or making them visible and available for learning opportunities.
- 5.36 The Strategic Policy Aim for Alternative Aggregates is not expected to have any effects on SA objective 11, as alternative aggregate facilities in Gloucestershire are unlikely to affect geodiversity due to their nature, scale and type of operation.

#### *SA Objective 12 (Historic environment and heritage assets)*

- 5.37 All aggregates minerals supply strategic policy aims and policies, except for the Strategic Policy Aim for Alternative Aggregates, are expected to have uncertain, mixed minor positive/minor negative effects on SA objective 12, as some aggregate sites (e.g. crushed rock) determined by these policies will be intensive and could therefore negatively affect the historic environment (e.g. archaeology, heritage assets and their setting as a result of blasting. However, some sites may not be as an intensive and be able to preserve findings and therefore benefit our understanding of the local archaeology or contribute towards the local vernacular. The Strategic Policy Aim for Alternative Aggregates is likely to have minor negative uncertain effects, as it is unlikely to have the potential to contribute positively to the historic environment and heritage assets due to the method of workings involved, and may potentially lead to noise, vibration and traffic effects which could negatively affect the historic environment, heritage assets and their setting.

#### *SA Objective 13 (Flooding)*

- 5.38 All aggregates minerals supply strategic policy aims and policies, except for the Strategic Policy Aim for Alternative Aggregates, are likely have uncertain, mixed no effect/minor positive effects on flood risk areas, as crushed rock working and processing is classed as less vulnerable, which means these sites are potentially compatible with all flood zones except for Flood Zone 3b, which they are unlikely to be located within, and are therefore not expected to affect this SA objective. Sand and gravel extraction sites are classed as water-compatible development and are potentially suitable for all flood zones including 3b, the functional floodplain, and therefore have the potential to increase flood capacity and have minor positive effects on this SA objective. The Strategic Policy Aim for Alternative Aggregates is not expected to have an effect on flood risk areas, as the WCS provides a positive steer towards the location of new permanent 'strategic scale' recycled facilities in Zone C (the central corridor in Gloucestershire which embraces the main urban area), which is located to the east of the flood plain of the River Severn<sup>24</sup> and therefore outside of flood risk zones. Also, there is encouragement for other fixed and temporary facilities to be associated with mineral workings, which is also not expected to affect this SA Objective.

#### *SA Objective 14 (Soil / land quality)*

- 5.39 All aggregates minerals supply strategic policy aims and policies may potentially have minor negative effects on SA objective 14 , as all the site options being considered range from small to medium scale (i.e. less than 20ha) to large (i.e. over 20ha), and therefore have the potential to impact on soil/land quality. However, the exact land take and extent of agricultural land quality (i.e. Grades 1 – 5) will not be known until the planning application stage. Similarly, any opportunities for improvements to soil quality through site restoration which could be possible will not be known until specific proposals come forward.

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<sup>24</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

#### *SA Objective 15 (Air Quality)*

- 5.40 All aggregates minerals supply strategic policy aims and policies may potentially have minor negative effects on SA objective 15, they supports aggregate operations to ensure an adequate and steady supply of aggregates can meet predicted needs. Aggregate proposals that come forward will involve activities (e.g. lorry traffic) that may negatively affect air quality, for example, due to the proximity of sensitive receptors and the distance mineral related traffic has to travel before reaching the strategic highway network.

#### *SA Objective 16 (Water quality and quantity)*

- 5.41 While all aggregates minerals supply policy aims and policies have some potential to affect water quality and quantity in Gloucestershire, at this stage in the planning process it is not possible to determine the impacts of these policies on water quality (surface or groundwater) or water use and efficiency, as it will very much depend on the specific proposals (location, design, method of working etc.) that come forward, which would be assessed at the planning application stage. Therefore, effects are uncertain for SA objective 16.

#### *SA Objective 17 (Lorry traffic)*

- 5.42 All aggregates minerals supply strategic policy aims and policies may have potential minor negative effects on SA objective 17 as the policies support aggregate operations to ensure an adequate and steady supply of aggregates can meet predicted needs. Aggregate proposals will involve lorry traffic movements, which at some sites may comprise multiple movements per day and may therefore lead to adverse impacts on the environment and communities associated with lorry traffic.

#### *SA Objective 18 (Climate change)*

- 5.43 All aggregates minerals supply strategic policy aims and policies may have minor positive effects on climate change as aggregate mineral sites will only be permitted to contribute to the provision for an adequate and steady supply of aggregates subject to economic, environmental and social considerations . In addition, alternative aggregate facilities permitted under the Strategic Policy Aim for Alternative Aggregates will support the reduction in primary aggregate extraction, which is an intensive industry which contributes to climate change However, at this stage in the planning process it is uncertain to what extent these aggregates minerals supply policies will be able to help reduce contributions to and adapt to climate change, as it will depend on the proposals they are used to determine and how successfully they are implemented, which would not be known until the planning application stage.

**Table 5.3: Summary of SA scores for Aggregate Minerals Supply Strategic Policy Aims and Policies**

|                                                                 | Strategic Policy Aim for Primary Aggregate Minerals – Meeting Need | Strategic Policy Aim for Primary Aggregate Minerals – Identifying Future Supply Areas | Proposed Policy for Preferred Areas for Aggregates | Proposed Policy for Proposals for the Working of Aggregates Outside of Preferred Areas | Strategic Policy Aim for Alternative Aggregates |
|-----------------------------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------------------------------|----------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------------------------|
| 1. Health and wellbeing                                         | -?                                                                 | -?                                                                                    | -?                                                 | -?                                                                                     | 0?                                              |
| 2. Amenity of local communities                                 | -?                                                                 | -?                                                                                    | -?                                                 | -?                                                                                     | 0?                                              |
| 3. Sustainable economic development                             | +                                                                  | +                                                                                     | +                                                  | +                                                                                      | +                                               |
| 4. Employment opportunities                                     | +                                                                  | +                                                                                     | +                                                  | +                                                                                      | +                                               |
| 5. Safety of commercial or military aerodromes                  | -?                                                                 | -?                                                                                    | -?                                                 | -?                                                                                     | 0?                                              |
| 6. Conservation of minerals resources                           | 0                                                                  | 0                                                                                     | 0                                                  | 0                                                                                      | 0                                               |
| 7. Biodiversity                                                 | +/-?                                                               | +/-?                                                                                  | +/-?                                               | +/-?                                                                                   | +/-?                                            |
| 8. Landscape                                                    | +/-?                                                               | +/-?                                                                                  | +/-?                                               | +/-?                                                                                   | +/-?                                            |
| 9. Restoration of mineral sites                                 | +                                                                  | +                                                                                     | +                                                  | +                                                                                      | +                                               |
| 10. Material, cultural and recreational assets                  | 0?                                                                 | 0?                                                                                    | 0?                                                 | 0?                                                                                     | 0?                                              |
| 11. Geodiversity                                                | +/-?                                                               | +/-?                                                                                  | +/-?                                               | +/-?                                                                                   | 0                                               |
| 12. Historic environment, heritage assets and their setting     | +/-?                                                               | +/-?                                                                                  | +/-?                                               | +/-?                                                                                   | -?                                              |
| 13. Flooding                                                    | 0/+?                                                               | 0/+?                                                                                  | 0/+?                                               | 0/+?                                                                                   | 0?                                              |
| 14. Soil / land quality                                         | -?                                                                 | -?                                                                                    | -?                                                 | -?                                                                                     | -?                                              |
| 15. Air quality                                                 | -?                                                                 | -?                                                                                    | -?                                                 | -?                                                                                     | -?                                              |
| 16. Water quality and quantity.                                 | ?                                                                  | ?                                                                                     | ?                                                  | ?                                                                                      | ?                                               |
| 17. Impacts of lorry traffic on the environment and communities | -?                                                                 | -?                                                                                    | -?                                                 | -?                                                                                     | -?                                              |
| 18. Climate Change                                              | +                                                                  | +                                                                                     | +                                                  | +                                                                                      | +                                               |

## Non-Aggregate Minerals Policies

- 5.44 The SA findings for all of the Non-Aggregate Minerals Policies included in Section 5 of the MLP Consultation Document (June 2014) are summarised in **Table 5.4**. These proposed policies cover:
- Proposed Policy for Building Stone.
  - Proposed Policy for Brick Clay.
  - Proposed Policy for Engineering Clay.
  - Proposed Policy for Small Scale Coal Underground Mines.
  - Proposed Policy for Opencast Coal.
  - Proposed Policy for Re-working of Colliery Spoil Tips.
  - Proposed Policy for Conventional and Unconventional Hydrocarbons.
- 5.45 The SA scores are summarised in **Table 5.4** for the non-aggregate minerals policies, under each SA objective. There is a mix of potentially positive, negative and mixed effects arising from the policies, however, for a number of the SA objectives, negligible and no effects are expected to occur. One significantly positive effect is expected for SA objective 12 (Historic Environment). Many of the identified effects are also uncertain, as the potential for effects will depend on the exact nature and design of sites, which would not be known until the planning application stage. Also, the proposed policies which have been identified to have potential negative effects on SA objectives will be supported by other policies within the MLP, when determining proposals, which should help to mitigate some of the negative effects identified. Furthermore, many of the policies include criteria that need to be met and may also provide mitigation, for example: the Proposed Policy for Unconventional and Conventional Hydrocarbons will only permit proposals where they do not adversely affect local communities and the environment, and accord with all other relevant planning policies.

## Social Objectives

### *SA Objective 1 (Health and wellbeing) and SA Objective 2 (Amenity)*

- 5.46 Due to the less intensive methods of extraction at non-aggregate minerals sites, combined with their low outputs and isolated, localised locations within Gloucestershire, the majority of non-aggregate minerals policies are expected to have negligible effects on SA objectives 1 and 2. However, both the Proposed Policies for Building Stone, and Conventional and Unconventional Hydrocarbons are expected to have minor negative effects on SA objectives 1 and 2, as a result of the more intensive sites that may be permitted by these policies, which may lead to impacts such as dust, noise, traffic congestion, lighting etc.

## Economic Objectives

### *SA Objective 3 (Economic development) and SA Objective 4 (Employment)*

- 5.47 Only Proposed Policies for Building Stone, and Conventional and Unconventional Hydrocarbons are expected to have minor positive effects on SA objective 3, as the Building Stone Policy aims to ensure the increase and maintenance of employment in Gloucestershire, making a positive contribution to the rural economy, whereas the Hydrocarbons Policy may permit operations that will help ensure a secure and diverse supply chain. All other non-aggregate minerals policies are not expected to affect SA objective 3 due to the small scale of these industries.
- 5.48 The Proposed Policies for Building Stone, Clay and Hydrocarbons are expected to have minor positive effects on SA objective 4, as the policies support the supply of these non-aggregate minerals, which will have positive effects on increasing employment levels, and as already noted, the Building Stone Policy in particular specifically aims to increase and maintain employment in Gloucestershire.

### *SA Objective 5 (Aerodrome safety)*

- 5.49 All non-aggregate minerals policies are not expected to affect SA objective 5, as all non-aggregate minerals sites are likely to be located outside of the aerodrome safeguarding area at RAF Fairford in the south east of Gloucestershire.



#### *SA Objective 6 (Conservation of mineral resources)*

- 5.50 All non-aggregate minerals policies are unlikely to affect SA objective 6, as non-aggregate minerals sites permitted under these policies will not be classed as inappropriate development, as they are contributing to the extraction of mineral resources, not limiting the ability to extract resources.

#### **Environmental Objectives**

#### *SA Objective 7 (Biodiversity) and SA Objective 8 (Landscape)*

- 5.51 All non-aggregate minerals policies are expected to have mixed minor positive/minor negative effects on SA objectives 7 and 8, as the policies could lead to proposals that could have potential impacts on designated biodiversity sites, protected species or habitats, landscape or landscape character, or be located within landscape designations. However, the policies could also have positive effects on these SA objectives, as many sites may have the potential to achieve net gains for biodiversity during working or restoration via biodiversity enhancement opportunities that may exist, or the policies may lead to the sympathetic restoration of sites that could have positive effects on landscape character.

#### *SA Objective 9 (Mineral site restoration)*

- 5.52 All non-aggregate minerals policies have been identified to have minor positive effects on SA objective 9, as sites that come forward may have the potential to be restored to a high standard, achieving maximum after use benefits and enhancing the landscape and biodiversity.

#### *SA Objective 10 (Material, cultural and recreational assets)*

- 5.53 The Proposed Policies for Building Stone and Coal may have minor positive effects on Gloucestershire's material, cultural and recreational assets, as they will help to conserve and maintain the local distinctiveness of Gloucestershire and support the use of traditional, local building stones; and support the potential extraction of coal from small scale underground mines, opencast methods, or the re-working of colliery spoil tips that in the Forest of Dean would help maintain the heritage and culture of the area. However, the Proposed Policies for Clay and Hydrocarbons are unlikely to meaningfully protect, conserve or enhance Gloucestershire's material, cultural or recreational assets. Furthermore, all non-aggregate minerals policies could support sites which could have potential effects on the access to and the enjoyment of recreational facilities (e.g. Public Rights of Way), although this is uncertain until planning applications come forward and it may not be the case for all sites, and where there is the potential for effects upon recreation they will be temporary

#### *SA Objective 11 (Geodiversity)*

- 5.54 All non-aggregate minerals policies, apart from the Proposed Policy for Conventional and Unconventional Hydrocarbons, are likely to have mixed minor positive/minor negative effects on SA Objective 11, as the continued or new extraction and/or processing of non-aggregate minerals may uncover and harm geological interests. Although, sites can also potentially contribute to geodiversity by preserving and conserving geological features, or making them visible and available for learning opportunities.
- 5.55 The Proposed Policy for Conventional and Unconventional Hydrocarbons is expected to have minor negative effects on SA objective 11, as operations may uncover and harm geological interests and there is unlikely to be the potential to contribute to geodiversity by preserving and conserving geological features.

#### *SA Objective 12 (Historic environment and heritage assets)*

- 5.56 The Proposed Policy for Building Stone is expected to have uncertain, mixed significant positive/minor negative effects on SA objective 12, as the proposed policy will help to conserve the historic environment in Gloucestershire and maintain its local distinctiveness, in some cases conserving buildings using similar, local building stones, thereby conserving and enhancing Gloucestershire's historic environment, heritage assets and their setting. However, the Proposed Policy for Building Stone may also have minor negative effects on this SA objective, as some sites may involve activities that could negatively affect the historic environment (e.g. archaeology), heritage assets and their setting due to transport, noise or vibration, or extraction methods. The Proposed Policy for Re-working of Colliery Spoil Tips is also expected to have minor positive

effects on SA objective 12, as the policy supports the potential re-working of colliery spoil tips to provide an improvement to the industrial heritage of the Forest of Dean, which would help conserve the heritage and culture of the area. All other policies are expected to have negligible effects on SA objective 12 due to the small scale, and less intensive nature of the operations, except for the Proposed Policy for Conventional and Unconventional Hydrocarbons, which is expected to have minor negative effects on SA objective 12, as operations can be intensive and therefore effect the historic environment and heritage assets.

#### *SA Objective 13 (Flooding)*

- 5.57 All non-aggregate minerals policies are unlikely to affect SA objective 13, as minerals working and processing (except sand & gravel working) are classed as 'less vulnerable' in flood risk terms, which means they are potentially compatible with all flood zones except for Flood Zone 3b. The types of sites that would be determined under the non-aggregate mineral policies are unlikely to be located in flood zone 3b as this is the functional flood plain where mainly sand and gravel resources are found. However, this would not be known until the planning application stage.

#### *SA Objective 14 (Soil / land quality)*

- 5.58 All proposed non-aggregate minerals policies, apart from the Proposed Policy for the Re-working of Colliery Spoil Tips, may potentially have minor negative effects on SA objective 14, as sites that come forward in Gloucestershire to ensure that adequate and steady supplies of aggregates can meet predicted needs are likely to range from small to medium scale (i.e. less than 20ha), and therefore have potential impacts on soil/land quality. However, the exact land take and extent of agricultural land quality (i.e. Grades 1 – 5) will not be known until the planning application stage. Similarly, any opportunities for improvements to soil quality through site restoration which could be possible will not be known until specific proposals come forward.
- 5.59 The Proposed Policy for the Re-working of Colliery Spoil Tips is likely to permit small to medium scale (i.e. less than 20ha) proposals for the re-working of colliery spoil tips. However, as this involves the re-working of spoil tips that are already in-situ it is not going to involve any additional land take than what has already taken place during previous mining activity. Therefore, effects on this SA objective are likely to be negligible.

#### *SA Objective 15 (Air Quality)*

The Proposed Policies for Clay and Coal are likely to have negligible effects on SA objective 15 as they are likely to involve small scale operations and low outputs thereby generating minimal traffic, which in turn will have a negligible impact on air quality. However, the Proposed Policy for Building Stone is likely to have mixed minor positive/minor negative effects on this SA objective as building and roofing stone sites are predominantly located in the AONBs within Gloucestershire, which are rural locations. In most cases these sites are also not located on the primary road network, which may mean mileage of associated traffic movements and their associated emissions are increased. However, the levels of traffic associated with building and roofing stone sites is less than other mineral workings due to the lower annual tonnages worked, thus the level of emissions generated from these sites is not likely to cause significant negative effects on air quality.

- 5.60 The Proposed Policy for Conventional and Unconventional Hydrocarbons is expected to have minor negative effects on this SA objective as conventional and unconventional oil and gas sites can involve flaring of gas, and substantial amounts of transport movements due to the transport of water used in operations and the transportation of extracted oil and gas.

#### *SA Objective 16 (Water quality and quantity)*

- 5.61 While all non-aggregate minerals policies may have some potential to affect the water quality and quantity in Gloucestershire, at this stage in the planning process it is not possible to determine the impacts of these policies on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the specific proposals (location, design, method of working etc.) that come forward, which would be assessed at the planning application stage. Therefore, effects are uncertain for SA objective 16.

#### *SA Objective 17 (Lorry traffic)*

- 5.62 The Proposed Policies for Clay and Coal are expected to have minor positive effects on SA objective 17, as levels of lorry traffic associated with these types of non-aggregate minerals sites is less than other mineral workings due to lower outputs that are associated with the sites. However, the Proposed Policy for Building Stone is likely to have mixed minor positive/minor negative effects on this SA objective as building and roofing stone sites are predominantly located in the AONBs within Gloucestershire<sup>25</sup>, which are rural locations. In most cases these sites are also not located on the primary road network, which may mean mileage of associated lorry traffic movements and their associated emissions are increased. However, the levels of lorry traffic associated with building and roofing stone sites is less than other mineral workings due to the lower annual tonnages worked, thus the level of emissions generated from these sites is not likely to cause significant negative effects on air quality.
- 5.63 The Proposed Policy for Conventional and Unconventional Hydrocarbons is expected to have minor negative effects on this SA objective as the levels of lorry traffic associated with sites can be substantial due to the transport of water used in operations and the transportation of extracted oil and gas.

#### SA Objective 18 (Climate change)

- 5.64 The Proposed Policy for Building Stone is expected to have minor positive effects on SA objective 18 as it supports the working and winning of the county's key natural building and roofing stones to maintain its local distinctiveness. This therefore supports local stone for local need, potentially reducing the need for the importation of stone into the county. The Proposed Policies for Clay may also have minor positive effects on SA objective 18, as they will only permit proposals for the extraction of clay where no adverse impacts arise from the proposals, or where the requirements of the general minerals policies of the plan are satisfied. However, all other non-aggregate minerals policies may have minor negative effects on climate change, as the working and use of coal, which may be permitted by the Proposed Policies for Coal, produces greenhouse gas emissions which contributes towards climate change. Similarly, the operation of hydrocarbon sites, which may be permitted by the Proposed Policy for Conventional and Unconventional Hydrocarbons, can involve flaring and the loss of gas naturally through cracks in the bedrock.

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<sup>25</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

**Table 5.4: Summary of SA scores for Non-Aggregate Minerals Policies**

|                                                                 | Proposed Policy<br>for Building<br>Stone | Proposed Policy<br>for Brick Clay | Proposed Policy<br>for Engineering<br>Clay | Proposed Policy<br>for Small Scale<br>Coal Underground<br>Mines | Proposed Policy<br>for Opencast Coal | Proposed Policy<br>for Re-working of<br>Colliery Spoil Tips | Proposed Policy<br>for Conventional<br>and<br>Unconventional<br>Hydrocarbons |
|-----------------------------------------------------------------|------------------------------------------|-----------------------------------|--------------------------------------------|-----------------------------------------------------------------|--------------------------------------|-------------------------------------------------------------|------------------------------------------------------------------------------|
| 1. Health and wellbeing                                         | -?                                       | -?                                | 0?                                         | 0?                                                              | 0?                                   | 0?                                                          | -?                                                                           |
| 2. Amenity of local communities                                 | -?                                       | 0?                                | 0?                                         | 0?                                                              | 0?                                   | 0?                                                          | -?                                                                           |
| 3. Sustainable economic development                             | +                                        | 0                                 | 0                                          | 0                                                               | 0                                    | 0                                                           | +?                                                                           |
| 4. Employment opportunities                                     | +                                        | +                                 | +                                          | 0                                                               | 0                                    | 0                                                           | +?                                                                           |
| 5. Safety of commercial or military aerodromes                  | 0                                        | 0                                 | 0                                          | 0                                                               | 0                                    | 0                                                           | 0                                                                            |
| 6. Conservation of minerals resources                           | 0                                        | 0                                 | 0                                          | 0                                                               | 0                                    | 0                                                           | 0                                                                            |
| 7. Biodiversity                                                 | +/-?                                     | +/-?                              | +/-?                                       | +/-?                                                            | +/-?                                 | +/-?                                                        | +/-?                                                                         |
| 8. Landscape                                                    | +/-?                                     | +/-?                              | +/-?                                       | +/-?                                                            | +/-?                                 | +/-?                                                        | +/-?                                                                         |
| 9. Restoration of mineral sites                                 | +                                        | +                                 | +                                          | +                                                               | +                                    | +                                                           | +                                                                            |
| 10. Material, cultural and recreational assets                  | +                                        | 0?                                | 0?                                         | +                                                               | +                                    | +                                                           | 0?                                                                           |
| 11. Geodiversity                                                | +/-?                                     | +/-?                              | +/-?                                       | +/-?                                                            | +/-?                                 | +/-?                                                        | -?                                                                           |
| 12. Historic environment, heritage assets and their setting     | ++/-?                                    | 0?                                | 0?                                         | 0?                                                              | 0?                                   | +                                                           | -?                                                                           |
| 13. Flooding                                                    | 0?                                       | 0?                                | 0?                                         | 0?                                                              | 0?                                   | 0?                                                          | 0?                                                                           |
| 14. Soil / land quality                                         | -?                                       | -?                                | -?                                         | -?                                                              | -?                                   | 0?                                                          | -?                                                                           |
| 15. Air quality                                                 | +/-?                                     | 0?                                | 0?                                         | 0?                                                              | 0?                                   | 0?                                                          | -?                                                                           |
| 16. Water quality and quantity.                                 | ?                                        | ?                                 | ?                                          | ?                                                               | ?                                    | ?                                                           | ?                                                                            |
| 17. Impacts of lorry traffic on the environment and communities | +/-?                                     | +                                 | +                                          | +                                                               | +                                    | +                                                           | -?                                                                           |
| 18. Climate Change                                              | +                                        | +                                 | +                                          | -?                                                              | -?                                   | -?                                                          | -                                                                            |

## Development Management Policies

- 5.65 The MLP Consultation Document (June 2014) includes a number of proposed development management style policies, in Section 6 (Environmental Considerations), Section 7 (Minerals Restoration) and Section 8 (Other Considerations). The SA findings for the proposed Development Management Policies included in Sections 6-7 of the MLP Consultation Document (June 2014) are summarised in **Table 5.5**, and **Table 5.6** for Section 8 of the MLP Consultation Document (June 2014).
- 5.66 In general, the proposed development management policies are only likely to affect a limited number of the SA objectives as they are 'topic-specific' policies (e.g. flood risk, landscape, biodiversity etc.). Therefore, a number of negligible effects are identified for many of the SA objectives. Where the development management policies are likely to affect SA objectives, the effects are generally positive, with some significant positive effects identified (as highlighted in bold text in the following sections). Only three minor negative effects are identified, all for SA objective 5 (aerodrome safeguarding), in relation to the policies covering Flood Risk, Biodiversity and the Cotswold Water Park.

## Flood Risk

- 5.67 Flooding can endanger lives, damage settlements, the amenity of local communities, and can also adversely affect the health of people<sup>26</sup>. As the Proposed Policy for Flood Risk seeks to reduce the likelihood and impact of flooding related to mineral workings, it is expected to have a positive effect on health (SA objective 1) and the amenity of local communities (SA objective 2) that may otherwise be adversely affected by flooding.
- 5.68 As the policy directly relates to flooding issues, a **significant positive effect is expected on reducing flooding** (SA objective 13). In addition, by reducing the likelihood of flooding, there may be associated positive effects on biodiversity (SA objective 7), landscape (SA objective 8), material assets (SA objective 10), and heritage assets (SA objective 12) that may otherwise be adversely affected by flooding. Flood alleviation schemes may also have positive effects on water-based restoration of mineral sites (SA objective 9) and adaptation to the impacts of climate change (SA objective 18). However, as proposals in The Cotswolds Water Park would be located within the safeguarding zone for RAF Fairford, there may be a minor negative effect on the safety of commercial or military aerodromes (SA objective 5) due to the potential for birds to provide a hazard to aircraft if sites are restored to a form of open water use.

## Water Quality

- 5.69 As this policy specifically seeks to protect water quality, ensuring any potentially harmful effects of minerals extraction are appropriately mitigated and that appropriate buffer zones are retained from watercourses, a **significant positive effect is expected on water quality** (SA objective 16). There are also likely to be associated positive effects on health (SA objective 1) by protecting public drinking water supplies, on biodiversity (SA objective 7) by protecting aquatic ecosystems, and on restoration (SA objective 9) by encouraging proposals to restore mineral sites to a high standard.

## Landscape

- 5.70 There are two proposed policies that relate to landscape issues: the Proposed Landscape Policy and the Proposed Policy for Mineral Working in the Green Belt.
- 5.71 Both these policies are likely to have positive effects on landscape (SA objective 8) by protecting and enhancing the landscape and countryside. Positive effects from the Proposed Landscape Policy are expected to be **significant for landscape**, as the policy relates to the wider landscape in Gloucestershire (which includes all areas within the Wye Valley and Cotswolds AONBs) rather than just areas within the Green Belt. In addition, both policies are expected to have associated positive effects on biodiversity (SA objective 7), restoration (SA objective 9), and cultural and recreational assets (SA objective 10).

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<sup>26</sup> Gloucestershire County Council. Planning and Environmental Considerations Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

- 5.72 The Proposed Landscape Policy may also have positive effects on health (SA objective 1) as the policy protects the benefits the landscape offers residents and visitors via its recreational, cultural and aesthetic benefits.

### Biodiversity and Geodiversity

- 5.73 The Proposed Policy for Biodiversity & Geodiversity requires all minerals development proposals to assess their impact on biodiversity and geodiversity, and is therefore expected to have a **significant positive effect on biodiversity and geodiversity** (SA objectives 7 and 11). As minerals restoration can have a major role in enhancing the natural environment<sup>27</sup>, the proposed policy is also likely to have a minor positive effect on restoration (SA objective 9) and may have a positive effect on landscape (SA objective 7) due to the strong relationship between landscape and habitats.
- 5.74 As proposals in the Cotswolds Water Park would be located within the safeguarding zone for RAF Fairford, there may be a minor negative effect on the safety of commercial or military aerodromes due to the potential for birds to provide a hazard to aircraft if sites are restored to support avian ecology.

### Historic Environment

- 5.75 There are two proposed policies that relate to Gloucestershire's historic environment: the Proposed Policy for the Historic Environment and the Proposed Development Management Criteria for the Historic Environment.
- 5.76 Both policies are likely to have **significant positive effects on the historic environment** (SA objective 12), as the main aim of the policy is to protect and conserve the historic environment. As such, both policies are also likely to have significant positive effects on landscape (SA objective 8) as the policy also protects historic landscapes and conservation areas and listed buildings which are located within these landscapes.
- 5.77 There may also be positive effects on air quality (SA objective 14) and reducing traffic impacts (SA objective 17) by protecting heritage assets from damage through air pollution and vibration. In addition, there may be positive effects on restoration (SA objective 9) as mineral sites may discover archaeological remains during working which could be conserved, using appropriate mitigation, and incorporated into the restoration of sites.

### Sustainable Transport

- 5.78 The Proposed Policy for Sustainable Transport is expected to have positive effects on a number of SA objectives. Minor positive effects are expected on health (SA objective 1) and the amenity of local communities (SA objective 2), as the policy restricts mineral developments that would generate adverse traffic impacts on residential amenity.
- 5.79 The proposed policy may also have positive effects on a number of the environmental objectives as it encourages alternative modes of transport, requires developments to be supported by a Transport Statement or Transport Assessment, and will not permit development that cannot mitigate adverse impacts on the highway network (such as highway safety and operation, or the local environment). Minor positive effects are therefore expected on biodiversity (SA objective 7), landscape (SA objective 8), the historic environment (SA objective 12), and climate change (SA objective 18). In addition, as the policy directly addresses **air quality** (SA objective 15) and **supports sustainable transport modes** (SA objective 17), **the positive effects on these objectives are expected to be significant.**

### Restoration

- 5.80 There are three proposed policies that relate to the restoration of mineral workings in Gloucestershire: Proposed Strategic Aim for the Cotswold Water Park, Proposed Restoration Policy, and Proposed Development Management Restoration Policy.

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<sup>27</sup> Gloucestershire County Council. Planning and Environmental Considerations Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.



- 5.81 The majority of effects from policies relating to restoration policies would be uncertain as effects would be dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation. However, as the Strategic Aim for the Cotswold Water Park and the Development Management Restoration Policy may lead to improved countryside access, there may be positive effects on health and wellbeing (SA objective 1) by promoting healthy lifestyles. In addition, the Development Management Restoration Policy specifically seeks benefits to the local community, and a positive effect may be had on the amenity of local communities (SA objective 2).
- 5.82 The Strategic Aim for the Cotswold Water Park and the Development Management Restoration Policy may also have positive effects on sustainable economic development (SA objective 3) where reclamation proposals support and diversify the local economy. If reclamation proposals under the Strategic Aim for the Cotswold Water Park support the tourism sector, then there may also be positive effects on employment opportunities in that sector (SA objective 4). These three policies are expected to have a mixed effect on the safety of aerodromes (SA objective 5), as The Cotswolds Water Park is located within the safeguarding zone for RAF Fairford and if restoration to water use occurs there could be impacts on the safety of the aerodrome due to potential bird strike, while the Development Management Restoration Policy requires that proposals do not cause civil or military aviation hazard and so should help to mitigate this effect.
- 5.83 As they directly relate to the restoration of mineral sites, all three of these proposed policies are expected to have **significant positive effects on restoration** (SA objective 9), by restoring mineral sites to a high standard. In general, the policies are also likely to have positive effects on other environmental objectives, with minor positive effects expected from all three policies on biodiversity (SA objective 7) and flooding (SA objective 13). These effects would be uncertain as it is dependent on the specific type of restoration proposed and eventually developed on a site. Due to its importance in relation to recreation (SA objective 10), the historic environment (SA objective 12), and water resources (SA objective 16), the Strategic Aim for the Cotswold Water Park is likely to have minor positive but uncertain effects on these objectives. Due to the requirements set out in the Proposed Restoration Policy, and the Proposed Development Management Restoration Policy, minor positive effects are expected on landscape (SA objective 8), geodiversity (SA objective 11), and soil quality (SA objective 14), with criteria within the Proposed Development Management Restoration Policy also expected to have positive effects on recreational assets (SA objective 10) and minimising the impacts of minerals related traffic movements (SA objective 17).

### Mitigation of Environmental Effects

- 5.84 As the Proposed Policy for Mitigation of Environmental Effects requires that any adverse environmental or pollution effects arising from mineral development can be controlled, mitigated, or eliminated, a positive effect is expected on the health (SA objective 1) and amenity (SA objective 2) of local communities that may otherwise be negatively affected by mineral developments.
- 5.85 Controlling, mitigating or eliminating environmental effects is also expected to have positive effects on biodiversity (SA objective 7), landscape (SA objective 8), recreational assets (SA objective 10), geodiversity (SA objective 11), the historic environment (SA objective 12), flooding (SA objective 13), soil quality (SA objective 14), air quality (SA objective 15), water quality (SA objective 16), and climate change (SA objective 16). The policy is not expected to have any effect on any of the economic SA objectives.

### Ancillary Development

- 5.86 This policy restricts ancillary developments within existing mineral sites that would lead to significantly adverse impact on the amenity of adjacent land-uses, and therefore the policy is likely to have positive effects on the health (SA objective 1) and amenity (SA objective 2) of local communities that may otherwise be negatively affected by mineral developments.
- 5.87 The policy restricts ancillary developments within existing mineral sites where the design, size and location is not in keeping with the character of the surrounding area, and therefore the policy is likely to have a positive effect on Gloucestershire's landscape (SA objective 8). In addition, the policy requires the life of ancillary developments within existing mineral sites to be limited to that

of the mineral working and where appropriate, dismantled in accordance with the restoration proposal, and as such, the policy is likely to have a positive effect on the restoration of mineral sites (SA objective 9). No effects are expected on other SA objectives.

### Safeguarding Aerodromes

- 5.88 Due to the specific nature of the Proposed Policy for Safeguarding Aerodromes, no effects are expected on the majority of SA objectives. As the policy directly safeguards the safety of aerodromes by restricting mineral developments or reclamation proposals for worked out mineral sites that may pose a hazard to any civilian or military aerodromes, a **significant positive effect is expected for SA objective 5** (safeguarding aerodromes).

### Planning Obligations

- 5.89 This policy supports the use of planning obligations that could include environmental enhancement to mitigate the negative impacts of mineral developments, and as such, positive effects are expected on all environmental objectives (SA objectives 7-18) and on the amenity of local communities (SA objective 2), although any effect is currently uncertain until the nature and impacts of specific proposals and planning obligations are known.

### Borrow Pits

- 5.90 Borrow pits allow construction projects to source minerals from close proximity to construction sites, and this policy is likely to have a **significant positive effect on reducing the impact of mineral related traffic movements** (SA objective 17), with associated positive effects on air quality (SA objective 15) and climate change (SA objective 18), and positive effects on sustainable economic development (SA objective 3) by supporting developments in Gloucestershire.
- 5.91 The criteria included in the Proposed Policy for Borrow Pits are expected to have positive effects on a number of SA objectives. In particular, requiring proposals to minimise disruption to local communities is expected to have a positive effect on the amenity of local communities (SA objective 2), requiring satisfactory reclamation of the site is expected to have a positive effect on the restoration of mineral sites (SA objective 9), and requiring proposals to demonstrate that the borrow pit will be less environmentally damaging than importing the required material from mineral sites which already have planning permission may lead to positive effects on biodiversity (SA objective 7), landscape (SA objective 8), geodiversity (SA objective 11), the historic environment (SA objective 12), flooding (SA objective 13), soil quality (SA objective 14), and water quality (SA objective 16).

### Cumulative Impact

- 5.92 This policy requires that when determining applications for minerals related development the Council will have regard to: the cumulative effects of previous and existing minerals development on local communities; to social cohesion and inclusion; and that an assessment of health, noise, dust, and odour impacts is included. As such, a positive effect is expected on health and wellbeing (SA objective 1) and the amenity of local communities (SA objective 2).
- 5.93 The policy also requires regard to be given to economic potential, which suggests that positive effects can be expected on sustainable economic development (SA objective 3) and employment opportunities (SA objective 4).
- 5.94 In addition, positive effects are expected on the majority of environmental objectives, as regard should be given to environmental quality. As the policy requires the assessment of traffic, ecological and visual impacts, the positive effects on biodiversity (SA objective 7), landscape (SA objective 8), air quality (SA objective 15), traffic impacts (SA objective 17), and climate change (SA objective 18), are expected to be more certain.

### Soils

- 5.95 As this policy protects agricultural land of higher grade, a **significant positive effect is expected on soil quality** (SA objective 14) is expected as the policy directly relates to soil resources in Gloucestershire. There may also be positive effects on sustainable economic



development (SA objective 3) and employment opportunities (SA objective 4), in particular within the agriculture industry.

### Public Rights of Way

- 5.96 This policy protects Public Rights of Way, particularly National Trails, and a **significant positive effect is therefore expected on the protection of recreational assets** (SA objective 10). This policy will also have positive effects on health (SA objective 1) and the amenity of local communities (SA objective 2) by promoting active lifestyles, and maintaining attractive open spaces within the local area. As the policy states that in exceptional circumstances, the Mineral Planning Authority may consider that a diversion of the Public Right of Way is not required, any positive effect is currently uncertain.

### Buffer Zones

- 5.97 The proposed policy for Buffer Zones will maintain an appropriate distance between mineral developments and sensitive land-uses, which is likely to include residential properties and other uses where health and amenity may be adversely affected if they were located too close to mineral sites. As the policy specifically addresses these issues, **significant positive effects are expected on health** (SA objective 1) **and the amenity of local communities** (SA objective 2). Maintaining a buffer zone between mineral developments and sensitive land-uses is unlikely to affect lorry traffic movements, but may have a minor positive effect on reducing the adverse impacts of minerals related transport (SA objective 17) as sensitive lorry routing will be more likely.
- 5.98 The definition of sensitive land-uses is not clarified in the policy wording, and therefore there are a number of objectives with uncertain effects. As distances are not known at this stage, any positive effect is also currently uncertain.

**Table 5.55: Summary of SA scores for Development Management Policies in Section 6 and 7 of the MLP Consultation Document**

| MLP Proposed Development Management Policies                    | Flood Risk | Water Quality | Landscape | Mineral Working in the Green Belt | Biodiversity & Geodiversity | Historic Environment | Historic Environment Development Management | Sustainable Transport | Cotswold Water Park | Restoration | Restoration Development Management |
|-----------------------------------------------------------------|------------|---------------|-----------|-----------------------------------|-----------------------------|----------------------|---------------------------------------------|-----------------------|---------------------|-------------|------------------------------------|
| <b>SA Objectives</b>                                            |            |               |           |                                   |                             |                      |                                             |                       |                     |             |                                    |
| <b>Social Objectives</b>                                        |            |               |           |                                   |                             |                      |                                             |                       |                     |             |                                    |
| 1. Health and wellbeing                                         | +          | +             | +         | 0                                 | 0                           | 0                    | 0                                           | +                     | +                   | 0           | +                                  |
| 2. Amenity of local communities                                 | +          | 0             | 0         | 0                                 | 0                           | 0                    | 0                                           | +                     | 0                   | 0           | +                                  |
| <b>Economic Objectives</b>                                      |            |               |           |                                   |                             |                      |                                             |                       |                     |             |                                    |
| 3. Sustainable economic development                             | 0          | 0             | 0         | 0                                 | 0                           | 0                    | 0                                           | 0                     | +                   | 0           | +                                  |
| 4. Employment opportunities                                     | 0          | 0             | 0         | 0                                 | 0                           | 0                    | 0                                           | 0                     | +                   | 0           | 0?                                 |
| 5. Safety of commercial or military aerodromes                  | -?         | 0             | 0         | 0                                 | -?                          | 0                    | 0                                           | 0                     | -?                  | 0           | +                                  |
| 6. Conservation of minerals resources                           | 0          | 0             | 0         | 0                                 | 0                           | 0                    | 0                                           | 0                     | 0                   | 0           | 0                                  |
| <b>Environmental Objectives</b>                                 |            |               |           |                                   |                             |                      |                                             |                       |                     |             |                                    |
| 7. Biodiversity                                                 | +          | +             | +         | +                                 | ++                          | 0                    | 0                                           | +                     | +                   | +           | +                                  |
| 8. Landscape                                                    | +          | 0             | ++        | +                                 | +                           | ++                   | ++                                          | +                     | 0?                  | +           | +                                  |
| 9. Restoration of mineral sites                                 | +          | +             | +         | +                                 | +                           | +                    | +                                           | 0                     | ++                  | ++          | ++                                 |
| 10. Material, cultural and recreational assets                  | +          | 0             | +         | +                                 | 0                           | 0                    | 0                                           | 0                     | +                   | 0?          | +                                  |
| 11. Geodiversity                                                | 0          | 0             | 0         | 0                                 | ++                          | 0                    | 0                                           | 0                     | 0?                  | +           | +                                  |
| 12. Historic environment, heritage assets and their setting     | +          | 0             | 0         | 0                                 | 0                           | ++                   | ++                                          | +                     | +                   | 0?          | 0?                                 |
| 13. Flooding                                                    | ++         | 0             | 0         | 0                                 | 0                           | 0                    | 0                                           | 0                     | +                   | +           | +                                  |
| 14. Soil / land quality                                         | 0          | 0             | 0         | 0                                 | 0                           | 0                    | 0                                           | 0                     | 0                   | +           | +                                  |
| 15. Air quality                                                 | 0          | 0             | 0         | 0                                 | 0                           | +                    | +                                           | ++?                   | 0                   | 0?          | 0                                  |
| 16. Water quality and quantity.                                 | 0          | ++            | 0         | 0                                 | 0                           | 0                    | 0                                           | 0                     | +                   | +           | 0?                                 |
| 17. Impacts of lorry traffic on the environment and communities | 0          | 0             | 0         | 0                                 | 0                           | +                    | +                                           | ++?                   | 0                   | 0           | +                                  |
| 18. Climate Change                                              | +          | 0             | 0         | 0                                 | 0                           | 0                    | 0                                           | +                     | 0                   | +           | 0                                  |

**Table 5.6: Summary of SA scores for Development Management Policies in Section 8 of the MLP Consultation Document**

| MLP Proposed Development Management Policies                    | Mitigation of Environmental Effects | Ancillary Development | Safeguarding Aerodromes | Planning Obligations | Borrow Pits | Cumulative Impact | Soils | Public Rights of Way | Buffer Zones |
|-----------------------------------------------------------------|-------------------------------------|-----------------------|-------------------------|----------------------|-------------|-------------------|-------|----------------------|--------------|
| <b>SA Objectives</b>                                            |                                     |                       |                         |                      |             |                   |       |                      |              |
| <b>Social Objectives</b>                                        |                                     |                       |                         |                      |             |                   |       |                      |              |
| 1. Health and wellbeing                                         | +?                                  | +                     | 0                       | 0                    | 0           | +                 | 0     | +?                   | ++?          |
| 2. Amenity of local communities                                 | +?                                  | +                     | 0                       | +?                   | +           | +                 | 0     | +?                   | ++?          |
| <b>Economic Objectives</b>                                      |                                     |                       |                         |                      |             |                   |       |                      |              |
| 3. Sustainable economic development                             | 0                                   | 0                     | 0                       | 0                    | +           | +                 | +     | 0                    | 0            |
| 4. Employment opportunities                                     | 0                                   | 0                     | 0                       | 0                    | 0           | +?                | +?    | 0                    | 0            |
| 5. Safety of commercial or military aerodromes                  | 0                                   | 0                     | ++                      | 0                    | 0           | 0                 | 0     | 0                    | 0?           |
| 6. Conservation of minerals resources                           | 0                                   | 0                     | 0                       | 0                    | 0           | 0                 | 0     | 0                    | 0            |
| <b>Environmental Objectives</b>                                 |                                     |                       |                         |                      |             |                   |       |                      |              |
| 7. Biodiversity                                                 | +?                                  | 0                     | 0                       | +?                   | +?          | +                 | 0     | 0                    | 0?           |
| 8. Landscape                                                    | +?                                  | +                     | 0                       | +?                   | +?          | +                 | 0     | 0                    | 0?           |
| 9. Restoration of mineral sites                                 | 0                                   | +                     | 0                       | +?                   | +           | 0                 | 0     | 0?                   | 0            |
| 10. Material, cultural and recreational assets                  | +?                                  | 0                     | 0                       | +?                   | 0           | +?                | 0     | ++?                  | 0?           |
| 11. Geodiversity                                                | +?                                  | 0                     | 0                       | +?                   | +?          | +?                | 0     | 0                    | 0?           |
| 12. Historic environment, heritage assets and their setting     | +?                                  | 0                     | 0                       | +?                   | +?          | +?                | 0     | 0                    | 0?           |
| 13. Flooding                                                    | +?                                  | 0                     | 0                       | +?                   | +?          | +?                | 0     | 0                    | 0            |
| 14. Soil / land quality                                         | +?                                  | 0                     | 0                       | +?                   | +?          | +?                | ++    | 0                    | 0            |
| 15. Air quality                                                 | +?                                  | 0                     | 0                       | +?                   | +           | +                 | 0     | 0                    | 0            |
| 16. Water quality and quantity.                                 | +?                                  | 0                     | 0                       | +?                   | +?          | +?                | 0     | 0                    | 0            |
| 17. Impacts of lorry traffic on the environment and communities | 0                                   | 0                     | 0                       | +?                   | ++          | +                 | 0     | 0                    | +?           |
| 18. Climate Change                                              | +?                                  | 0                     | 0                       | +?                   | +           | +                 | 0     | 0                    | 0            |

## Summary of SA Findings for site options

- 5.99 The findings of the SA matrices are summarised in **Tables 5.7-5.10** below for all of the crushed rock and sand and gravel potential sites options included in the GCC draft Site Assessment.
- 5.100 The SA scores are summarised for the four mineral resource areas:
- Crushed Rock Forest of Dean.
  - Crushed Rock Cotswolds.
  - Sand and Gravel Cotswold Water Park.
  - Sand and Gravel Severn Vale.
- 5.101 There is a mix of potentially positive and negative effects arising from the use of these site options for mineral extraction, however, for a number of the SA objectives, no effect is expected to occur. The potential for significant negative effects has only been identified for some of the sites on the SA objectives relating to biodiversity (SA Objective 7), landscape (SA Objective 8), cultural and recreational assets (SA Objective 10), historic environment and heritage assets (SA objective 12) and soil/land quality (SA Objective 14). Mitigation of the potentially negative effects could be achieved through implementation of good operational practices, and requiring certain surveys or detailed assessments to be undertaken as part of the planning application process. These requirements are included within the policies in the MLP Consultation Document (June 2014), and will need to be included within any specific briefs for the sites that are ultimately selected for allocation in the MLP.

### Social Objectives

#### SA Objective 1 (*Health and wellbeing*)

- 5.102 Twenty-four of the site options may have a minor negative effect on SA objective 1 due to them being within proximity of nearby sensitive receptors (e.g. properties and settlements). However, each mineral resource area includes a minority of sites that are expected to have no effect on health, as they are further than 100m from sensitive receptors. The sites likely to have no effect are: one site option in the **Crushed Rock Forest of Dean** resource area (Stowfield parcel A), three site options in the **Crushed Rock Cotswolds** resource area (Daglingworth parcel A, Huntsmans parcel A, and Oakhill parcel A), five sites options in the **Sand and Gravel Cotswold Water Park** resource area (Dryleaze Farm/Shorncote parcel A, and Kempsford/Whelford parcels A – D), and two site options in the **Sand and Gravel Severn Vale** resource area (Redpools Farm parcels a and c). It should be noted that mineral extraction at any of the potential sites will be well operated and that mitigation measures implemented should be sufficient to avoid any potential long term effects on health and wellbeing.

#### SA Objective 2 (*Amenity*)

- 5.103 Similar to SA objective 1, most of the site options (thirty-two in total) have the potential to have a minor negative effect on SA objective 2, due to proximity of nearby sensitive receptors that may be affected by noise, dust, vibration etc. However, the extent of effects on local amenity will depend on the type of mineral extracted, the scale of the operations and the type of activities undertaken within the site. For example, noise and vibration may be greater near hard rock sites (e.g. crushed rock) due to the need for blasting prior to excavation, which is rarely needed at sand and gravel sites. Only one site in the **Crushed Rock Cotswolds** resource area (Huntsmans parcel a) and two sites in the **Sand and Gravel Severn Vale** resource area (Redpools Farm parcels a and c) are expected to have no effect on SA objective 2, as they are further than 100m from sensitive receptors. It should be noted that mineral extraction at any of the potential sites will be well operated and that mitigation measures implemented should be sufficient to avoid any potential long term amenity effects.
- 5.104 There are seven site options which are not within 100m of a sensitive receptor but still have potential to have a minor negative effect on SA objective 2, as the sites are within 1km of a settlement and other existing mineral sites are also within 1km of the same settlement, therefore, continuing mineral extraction activity in the area could have a cumulative effect on the amenity of

the local community. For example, Parcels A-D of the Kempsford/Whelford site located in the **Sand and Gravel Cotswold Water Park** resource area are more than 100m from sensitive receptors but they are also within 1km of the settlement of Kempsford and the existing Kempsford/Manor Farm mineral site.

- 5.105 There are also some sites within the **Crushed Rock Forest of Dean** resource area (e.g. Parcels A-C of the Stowe Hill/Clearwell site), the **Sand and Gravel Cotswold Water Park** resource area (e.g. Parcels A and B of the Horcott/Lady Lamb Farm site), and the **Sand and Gravel Severn Vale** resource area (e.g. Parcels A-D of the Redpools Farm site) that could have positive or negative effects on the amenity of local communities due to reducing or increasing the effects of lorry traffic. For example, extensions to some sites may provide opportunities for new highway access which would enable lorries to reach the strategic road network with less impact on communities, thereby reducing lorry traffic on existing local roads. Alternatively, due to the location of some site options, GCC Highways has major concerns in relation to highways access, due to the width and alignment of the local road network. These effects are uncertain as the potential for effects will depend on the exact nature and design of the site and its access, which would not be known until the planning application stage.

### **Economic Objectives**

#### *SA Objective 3 (Economic development) and SA Objective 4 (Employment)*

- 5.106 All site options are likely to have negligible effects on SA objective 3 as they are unlikely to present opportunities for spin off employment or other opportunities (e.g. growth and investment in industries associated with aggregate sites such as haulage companies and engineers for processing plant machinery) as minerals sites are often self-served by the operators that own them. However, due to the likely job creation directly associated with new mineral extraction sites, all sites are likely to have minor positive effects on SA objective 4, irrespective of their location.

#### *SA Objective 5 (Aerodrome safety)*

- 5.107 All site options located within the **Sand and Gravel Cotswold Water Park** resource area have the potential to have minor negative effects on SA Objective 5, as the whole area lies within the RAF Fairford safeguarding zone. Minor negative effects may occur at these site options as they may be restored to open water where birds may congregate in large areas, and as the site options are within close proximity to RAF Fairford they may provide a hazard to aircraft due to the increased risk of bird-strike. However, the effects would be uncertain as it is dependent on the type of restoration proposed and eventually implemented on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. For example, sites may be restored to dry after uses due to being located within the RAF Fairford safeguarding zone. While this would be positive in terms of protecting the safety of the aerodromes, this could increase the risk of flooding as discussed under SA Objective 13 below.
- 5.108 All other site options for sand and gravel extraction in the Severn Vale and crushed rock extraction in the Forest of Dean and Cotswolds are expected to have no effect on SA objective 5, as they are not within an aerodrome safeguarding area.

#### *SA Objective 6 (Conservation of mineral resources)*

- 5.109 All site options are expected to have no effect on SA objective 6, as new potential mineral sites would not be classed as inappropriate development in terms of conserving mineral resources. The inappropriate development relates to other development types such as housing or employment, which could 'sterilise' the mineral resource from being extracted if developed on top of it.

### **Environmental Objectives**

#### *SA Objective 7 (Biodiversity)*

- 5.110 Only one of the site options in the **Crushed Rock Forest of Dean** resource area (Stowe Hill/Clearwell parcel A) has the potential to have a minor negative effect on SA objective 7, as it is within 1km of an internationally designated site. However, these effects would be uncertain as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage. The remaining five sites in the resource area have the potential to have either mixed minor negative and positive effects or no effects on SA

objective 7, as while they are within 1km of designated sites; in reality impacts are unlikely and if the minerals sites are enhanced through restoration they could make contributions to biodiversity enhancement and have positive effects on designated sites. However, this is uncertain as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage. All but two of the site options (Daglingworth parcel A and Oathill parcel A) in the **Crushed Rock Cotswolds** resource area have the potential to have minor positive effects on SA objective 7, as there is the potential to provide some biodiversity enhancement tying into surrounding restoration schemes for consented extensions (e.g. Huntsmans parcels A-C). However, these effects would be uncertain as they will depend on the exact nature and design of new sites, which would not be known until the planning application stage. Similarly over half of the site options in the **Sand and Gravel Severn Vale** resource area have the potential to have minor positive effects on this objective, as the sites hold opportunity for local biodiversity enhancement.

- 5.111 Only one site option in the **Sand and Gravel Cotswold Water Park** (Cerne Wick parcel A) has the potential have a minor negative effect on SA objective 7. The rest of the sites either have the potential to have mixed minor negative and positive effects or minor positive effects.

*SA Objective 8 (Landscape)*

- 5.112 The site options in the **Crushed Rock Forest of Dean** resource area are expected to have mixed effects on SA objective 8. Two of the sites (Stowfield parcel A and Hewlesfield parcel A) could have significant negative effects on landscape character, as they are located within the Wye Valley AONB. In addition, three sites (Stowe Hill/Clearwell parcels A-C) may have a minor negative effect on SA objective 8, as they are within 1km of the Wye Valley AONB. Drybrook (parcel A) is considered unlikely to have an effect on landscape as its more than 1km from any AONB, however, it is uncertain whether there would be effects on local landscape character, as impacts on the landscape will depend upon factors such as how prominent Drybrook (parcel A) is in the landscape, the level of screening proposed, and the character of the surrounding landscape, which has not been assessed within the GCC assessment at this stage.
- 5.113 All of the site options in the **Crushed Rock Cotswolds** resource area have the potential to have a significant negative effect on SA objective 8, as they are located within the Cotswolds AONB. However, the GCC assessment notes that while the existence of the Cotswolds AONB designation is a significant disadvantage for the site options within the Crushed Rock Cotswolds resource area, there are no other sources of Cotswold limestone that are not within the AONB. Cotswold limestone is required to provide construction products that when used in local buildings contribute to the local vernacular and character of the Cotswolds AONB. The emerging GCC spatial strategy suggests that it is appropriate and sustainable to make provision in the Cotswold resource area to meet local provision.
- 5.114 All of the site options in the **Sand and Gravel Cotswold Water Park** and **Sand and Gravel Severn Vale** resource areas are more than 1km away from any AONB and are therefore considered unlikely to have an effect on SA objective 8. However, it is uncertain whether there would be effects on local landscape character, as impacts on the landscape will depend upon factors such as how prominent the sites are in the landscape, the level of screening proposed, and the character of the surrounding landscape, which has not been assessed within the GCC assessment at this stage.

*SA Objective 9 (Mineral site restoration)*

- 5.115 All site options irrespective of their location are expected to have a minor positive effect on SA objective 9, as the restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored.

*SA Objective 10 (Material, cultural and recreational assets)*

- 5.116 All site options in the **Crushed Rock Forest of Dean** and **Crushed Rock Cotswolds** resource areas, and all but one site option in the **Sand and Gravel Severn Vale** resource area have the potential for minor negative effects on SA objective 10, as Public Rights of Way (PRoW) are either within 250m of the sites or run through areas of the sites and the GCC PRoW Team have identified that diversions would be required. Similarly the majority of site options in the **Sand and Gravel Cotswold Water Park** resource area have the potential for minor negative effects

on SA objective 10. However, two sites (Kempsford/Whelford parcels C and D) in this resource area have the potential to have significant negative effects on SA objective 10, as PRoW run through areas of the sites, some of which are located in areas which are sensitive in terms of rights of way, and would need to be temporarily closed while they are diverted. None of the site options are expected to affect other leisure or recreational facilities or open space, including cycle routes, due to their location in relation to these assets.

#### *SA Objective 11 (Geodiversity)*

- 5.117 The site options in the **Crushed Rock Forest of Dean** and **Sand and Gravel Cotswold Water Park** resource areas are expected to either have no effect on SA objective 11 as they are more than 500m from a national site of geological interest (SSSI) or Regionally Important Geological Site (RIGS)<sup>28</sup>, or have potential to have a minor negative effect as they are within 500m of a national site of geological interest (SSSI) or RIGS. In these sites, there is the potential to damage or remove the geological interest through excavation practices. The site options in the **Crushed Rock Forest of Dean** resource area are split half and half between no effect and minor negative effects on SA objective 11, whereas more of the site options in the **Sand and Gravel Cotswold Water Park** resource area are expected to have no effect on SA objective 11 than minor negative effects.
- 5.118 All of the site options in the **Crushed Rock Cotswolds** resource area could have a minor negative effect on SA objective 11, as they are within 500m of a SSSI of geological interest or RIGS. However, all of the site options in the **Sand and Gravel Severn Vale** resource area are expected to have no effect, as they are more than 500m from a national site of geological interest (SSSI) or RIGS.

#### *SA Objective 12 (Historic environment and heritage assets)*

- 5.119 The majority of site options in all resource areas have the potential to have a minor negative effect on SA Objective 12, as they are within 1km of a Historic Park or Garden or Registered Battlefield, Scheduled Ancient Monument or Listed Building, or a Conservation Area, and minerals extraction sites could potentially affect the setting of these heritage assets. However, a total of six site options (at least one in each resource area) could have significant negative effects on SA objective 12, as they are adjacent to a conservation area or other heritage asset, and the GCC assessment states that archaeological assessment/evaluation should be undertaken to establish the full range of archaeological interest and the extent and significance of any heritage assets present in some of these sites, and whether there are any parts that need to be preserved or excavated.

#### *SA Objective 13 (Flooding)*

- 5.120 All of the site options in all resource areas are not expected to have an effect on SA objective 13, as the site options are either crushed rock sites which are partially or entirely within flood zones of lower probability of flooding, or are sand and gravel sites, which are classed as water-compatible development in the NPPF Technical Guide<sup>29</sup>, and therefore can be located in any flood zone. However, if any of the site options in the **Sand and Gravel Cotswold Water Park** resource area are restored to a dry after use due to being located within the RAF Fairford safeguarding zone, it could increase the risk of flooding. However, the type of restoration proposed and eventually developed on site will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.

#### *SA Objective 14 (Soil / land quality)*

- 5.121 The majority of site options in the **Crushed Rock Forest of Dean**, **Crushed Rock Cotswolds** and **Sand and Gravel Severn Vale** resource areas could have minor negative effects on SA objective 14, as they are large (i.e. over 20ha) and within grade 1, 2 or 3 agricultural land, or are small to medium (i.e. less than 20ha) and entirely within grade 1, 2 or 3 agricultural land. In both of these situations, mineral extraction at the site could result in the loss of high quality agricultural land. However, half of the site options in the **Sand and Gravel Cotswold Water Park** resource area could have significant negative effects on SA objective 14 as the sites are

<sup>28</sup> While the government has proposed to change the name of Regionally Important Geological Sites (RIGS) to Local Geological Sites; in Gloucestershire they are still referred to as RIGS.

<sup>29</sup> DCLG. Technical Guidance to the National Planning Policy Framework, March 2012.



large (i.e. over 20ha) and located entirely within grade 1 or 2 agricultural land, and could therefore result in the loss of large areas of high quality agricultural land.

*SA Objective 15 (Air Quality)*

- 5.122 The majority of site options in the **Crushed Rock Forest of Dean, Crushed Rock Cotswolds** and **Sand and Gravel Cotswold Water Park** resource areas could have minor negative impacts on SA Objective 15, as they are more than 1km from the strategic highway network, and it is assumed that HGV traffic associated with the sites is therefore likely to travel further along local roads before reaching the strategic highway network. Conversely, all of the site options in the **Sand and Gravel Severn Vale** resource area are expected to have no impact on SA objective 15 as all sites are within 1km of the strategic highway network, and therefore HGVs are likely to spend less time on local roads.

*SA Objective 16 (Water quality and quantity)*

- 5.123 Only Daglingworth (parcel A) in the **Crushed Rock Cotswolds** resource area is expected to have a minor negative effect on SA objective 16 as it is within a SPZ1, and could therefore have an effect on public water supply depending on whether the mineral is extracted below the water table. All other site options in all resource areas are not within SPZ1 but do overlie either Principal aquifers and/or Secondary A or B aquifers. However, at this stage in the planning process it is not possible to determine the impacts of these minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage.

*SA Objective 17 (Lorry traffic)*

- 5.124 The majority of site options in the **Crushed Rock Forest of Dean, Crushed Rock Cotswolds** and **Sand and Gravel Cotswold Water Park** resource areas are located more than 1km from the strategic highway network and as traffic associated with the sites is assumed likely to travel further along local roads, minor negative effects are expected on reducing the impacts of lorry traffic on the environment and communities for SA objective 17. However, these effects are uncertain for a large proportion of the site options as they have the potential lead to positive or negative effects on the amenity of local communities due to reducing or increasing the effects of lorry traffic. For example, extensions to some sites may provide opportunities for new highway access which would enable lorries to reach the strategic road network with less impact on communities, thereby reducing lorry traffic on existing local roads. Alternatively, due to the location of some site options, GCC Highways has major concerns in relation to highways access, due to the width and alignment of the local road network. However, this is uncertain as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage.
- 5.125 Conversely, all of the site options in the **Sand and Gravel Severn Vale** resource area are within 1km of the strategic highway network and could therefore have minor positive effects or mixed minor positive negative effects on reducing the impacts of lorry traffic on the environment and communities for SA objective 17. Some of these site options have the potential to have mixed effects as while the sites are within close proximity to the strategic road network they are not associated with any current mineral operations and the suitability of and the mitigation for the road network would need to be determined, and safe and suitable access would be required. Again, effects would be uncertain as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage.

*SA Objective 18 (Climate change)*

- 5.126 At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to adapt to climate change as it will depend on the specific proposals for how minerals will be extracted, which would be assessed at the planning application stage.



**Table 5.7: Summary of SA scores for potential site options within the Crushed Rock Forest of Dean resource area.**

| SA Objective                                                    | CRFD1 (a)<br>Stowe<br>Hill/Clearwell | CRFD1 (b)<br>Stowe<br>Hill/Clearwell | CRFD1 (c)<br>Stowe<br>Hill/Clearwell | CRFD2 (a)<br>Drybrook | CRFD3 (a)<br>Stowfield | CRFD4 (a)<br>Hewelsfield |
|-----------------------------------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|-----------------------|------------------------|--------------------------|
| <b>Social</b>                                                   |                                      |                                      |                                      |                       |                        |                          |
| 1. Health and wellbeing.                                        | -?                                   | -?                                   | -?                                   | -?                    | 0                      | -?                       |
| 2. Amenity of local communities.                                | -                                    | -                                    | -                                    | -                     | -                      | -                        |
| <b>Economic</b>                                                 |                                      |                                      |                                      |                       |                        |                          |
| 3. Sustainable economic development.                            | 0                                    | 0                                    | 0                                    | 0                     | 0                      | 0                        |
| 4. Employment opportunities.                                    | +                                    | +                                    | +                                    | +                     | +                      | +                        |
| 5. Safety of commercial or military aerodromes.                 | 0                                    | 0                                    | 0                                    | 0                     | 0                      | 0                        |
| 6. Conservation of minerals resources.                          | 0                                    | 0                                    | 0                                    | 0                     | 0                      | 0                        |
| <b>Environmental</b>                                            |                                      |                                      |                                      |                       |                        |                          |
| 7. Biodiversity.                                                | -?                                   | -/+?                                 | -/+?                                 | 0                     | -/+?                   | -/+?                     |
| 8. Landscape.                                                   | -?                                   | -?                                   | -?                                   | 0?                    | --?                    | --?                      |
| 9. Restoration of mineral sites.                                | +                                    | +                                    | +                                    | +                     | +                      | +                        |
| 10. Material, cultural and recreational assets.                 | -                                    | -                                    | -                                    | -                     | -                      | -                        |
| 11. Geodiversity.                                               | -?                                   | 0                                    | -?                                   | 0                     | -?                     | 0                        |
| 12. Historic environment, heritage assets and their setting.    | -?                                   | -?                                   | -?                                   | -?                    | --?                    | -?                       |
| 13. Flooding.                                                   | 0                                    | 0                                    | 0                                    | 0                     | 0                      | 0                        |
| 14. Soil / land quality.                                        | -                                    | -                                    | -                                    | -                     | 0                      | --                       |
| 15. Air quality.                                                | -                                    | -                                    | -                                    | -                     | 0                      | -                        |
| 16. Water quality and quantity.                                 | ?                                    | ?                                    | ?                                    | ?                     | ?                      | ?                        |
| 17. Impacts of lorry traffic on the environment and communities | -?                                   | -?                                   | -?                                   | -?                    | +                      | -                        |
| 18. Climate Change.                                             | ?                                    | ?                                    | ?                                    | ?                     | ?                      | ?                        |

**Table 5.8: Summary of SA scores for potential site options within the Crushed Rock Cotswolds resource area.**

| SA Objective                                                    | CRCW1 (a)<br>Daglingworth | CRCW2 (a)<br>Huntsmans | CRCW2 (b)<br>Huntsmans | CRCW2 (c)<br>Huntsmans | CRCW 3 (a)<br>Three Gates | CRCW 4 (a)<br>Oathill |
|-----------------------------------------------------------------|---------------------------|------------------------|------------------------|------------------------|---------------------------|-----------------------|
| <b>Social</b>                                                   |                           |                        |                        |                        |                           |                       |
| 1. Health and wellbeing.                                        | 0                         | 0                      | -?                     | -?                     | -?                        | 0                     |
| 2. Amenity of local communities.                                | -                         | 0                      | -                      | -                      | -                         | -                     |
| <b>Economic</b>                                                 |                           |                        |                        |                        |                           |                       |
| 3. Sustainable economic development.                            | 0                         | 0                      | 0                      | 0                      | 0                         | 0                     |
| 4. Employment opportunities.                                    | +                         | +                      | +                      | +                      | +                         | +                     |
| 5. Safety of commercial or military aerodromes.                 | 0                         | 0                      | 0                      | 0                      | 0                         | 0                     |
| 6. Conservation of minerals resources.                          | 0                         | 0                      | 0                      | 0                      | 0                         | 0                     |
| <b>Environmental</b>                                            |                           |                        |                        |                        |                           |                       |
| 7. Biodiversity.                                                | 0                         | +                      | +                      | +                      | +                         | -/+?                  |
| 8. Landscape.                                                   | --?                       | --?                    | --?                    | --?                    | --?                       | --?                   |
| 9. Restoration of mineral sites.                                | +                         | +                      | +                      | +                      | +                         | +                     |
| 10. Material, cultural and recreational assets.                 | -                         | -                      | -                      | -                      | -                         | -                     |
| 11. Geodiversity.                                               | -?                        | -?                     | -?                     | -?                     | -?                        | -?                    |
| 12. Historic environment, heritage assets and their setting.    | --?                       | --?                    | -?                     | -?                     | -?                        | -?                    |
| 13. Flooding.                                                   | 0                         | 0                      | 0                      | 0                      | 0                         | 0                     |
| 14. Soil / land quality.                                        | -                         | -                      | -                      | -                      | -                         | -                     |
| 15. Air quality.                                                | -                         | -                      | -                      | -                      | -                         | -                     |
| 16. Water quality and quantity.                                 | -?                        | ?                      | ?                      | ?                      | ?                         | ?                     |
| 17. Impacts of lorry traffic on the environment and communities | +                         | -                      | -                      | -                      | -?                        | -                     |
| 18. Climate Change.                                             | ?                         | ?                      | ?                      | ?                      | ?                         | ?                     |

**Table 5.9: Summary of SA scores for potential site options within the Sand & Gravel Cotswolds Water Park resource area.**

| SA Objective                                    | SGCW1 (a)<br>Dryleaze Farm/Shorncote | SGCW2 (a) Cerney Wick/Oaktree Fields | SGCW3 (a) Horcott/Lady Lamb Farm | SGCW3 (b) Horcott/Lady Lamb Farm | SGCW4 (a) Kempsford/Whelford | SGCW4 (b) Kempsford/Whelford | SGCW4 (c) Kempsford/Whelford | SGCW4 (d) Kempsford/Whelford | SGCW4 (e) Kempsford/Whelford | SGCW4 (f) Kempsford/Whelford | SGCW5 (a) Down Ampney | SGCW5 (b) Down Ampney | SGCW5 (c) Down Ampney | SGCW6 (a) Charlham Farm | SGCW7 (a) Wetstone (Whetstone) Bridge | SGCW8 (a) Spratsgate Lane |
|-------------------------------------------------|--------------------------------------|--------------------------------------|----------------------------------|----------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|-----------------------|-----------------------|-----------------------|-------------------------|---------------------------------------|---------------------------|
| <b>Social</b>                                   |                                      |                                      |                                  |                                  |                              |                              |                              |                              |                              |                              |                       |                       |                       |                         |                                       |                           |
| 1. Health and wellbeing.                        | 0                                    | -?                                   | -?                               | -?                               | 0                            | 0                            | 0                            | 0                            | -?                           | -?                           | -?                    | -?                    | -?                    | -?                      | -?                                    | -?                        |
| 2. Amenity of local communities.                | -                                    | -                                    | -                                | -                                | -?                           | -?                           | -?                           | -?                           | -                            | -                            | -                     | -                     | -                     | -                       | -                                     | -                         |
| <b>Economic</b>                                 |                                      |                                      |                                  |                                  |                              |                              |                              |                              |                              |                              |                       |                       |                       |                         |                                       |                           |
| 3. Sustainable economic development.            | 0                                    | 0                                    | 0                                | 0                                | 0                            | 0                            | 0                            | 0                            | 0                            | 0                            | 0                     | 0                     | 0                     | 0                       | 0                                     | 0                         |
| 4. Employment opportunities.                    | +                                    | +                                    | +                                | +                                | +                            | +                            | +                            | +                            | +                            | +                            | +                     | +                     | +                     | +                       | +                                     | +                         |
| 5. Safety of commercial or military aerodromes. | -?                                   | -?                                   | -?                               | -?                               | -?                           | -?                           | -?                           | -?                           | -?                           | -?                           | -?                    | -?                    | -?                    | -?                      | -?                                    | -?                        |
| 6. Conservation of minerals resources.          | 0                                    | 0                                    | 0                                | 0                                | 0                            | 0                            | 0                            | 0                            | 0                            | 0                            | 0                     | 0                     | 0                     | 0                       | 0                                     | 0                         |
| <b>Environmental</b>                            |                                      |                                      |                                  |                                  |                              |                              |                              |                              |                              |                              |                       |                       |                       |                         |                                       |                           |
| 7. Biodiversity.                                | 0                                    | -?                                   | +                                | +                                | +                            | +                            | -/+?                         | +                            | -/+?                         | -/+?                         | -/+?                  | - /+?                 | - /+?                 | - /+?                   | -/+?                                  | +                         |
| 8. Landscape.                                   | 0?                                   | 0?                                   | 0?                               | 0?                               | 0?                           | 0?                           | 0?                           | 0?                           | 0?                           | 0?                           | 0?                    | 0?                    | 0?                    | 0?                      | 0?                                    | 0?                        |
| 9. Restoration of mineral sites.                | +                                    | +                                    | +                                | +                                | +                            | +                            | +                            | +                            | +                            | +                            | +                     | +                     | +                     | +                       | +                                     | +                         |

| SA Objective                                                    | SGCW1 (a)<br>Dryleaze<br>Farm/Shorncote | SGCW2 (a) Cerney<br>Wick/Oaktree<br>Fields | SGCW3 (a)<br>Horcott/Lady<br>Lamb Farm | SGCW3 (b)<br>Horcott/Lady<br>Lamb Farm | SGCW4 (a)<br>Kempsford/<br>Whelford | SGCW4 (b)<br>Kempsford/<br>Whelford | SGCW4 (c)<br>Kempsford/<br>Whelford | SGCW4 (d)<br>Kempsford/<br>Whelford | SGCW4 (e)<br>Kempsford/<br>Whelford | SGCW4 (f)<br>Kempsford/<br>Whelford | SGCW5 (a) Down<br>Ampney | SGCW5 (b) Down<br>Ampney | SGCW5 (c) Down<br>Ampney | SGCW6 (a)<br>Charlham Farm | SGCW7 (a)<br>Wetstone<br>(Whetstone)<br>Bridge | SGCW8 (a)<br>Spratsgate Lane |
|-----------------------------------------------------------------|-----------------------------------------|--------------------------------------------|----------------------------------------|----------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|----------------------------|------------------------------------------------|------------------------------|
| 10. Material, cultural and recreational assets.                 | 0                                       | -                                          | -                                      | -                                      | -                                   | -                                   | --                                  | --?                                 | -                                   | -                                   | -                        | -                        | -                        | -                          | 0                                              | -                            |
| 11. Geodiversity.                                               | 0                                       | 0                                          | 0                                      | -?                                     | -?                                  | -?                                  | 0                                   | 0                                   | 0                                   | 0                                   | 0                        | 0                        | 0                        | 0                          | 0                                              | -?                           |
| 12. Historic environment, heritage assets and their setting.    | -?                                      | -?                                         | -?                                     | -?                                     | --?                                 | -?                                  | -?                                  | -?                                  | -?                                  | -?                                  | --?                      | -?                       | -?                       | -?                         | -?                                             | -?                           |
| 13. Flooding.                                                   | 0                                       | 0                                          | 0                                      | 0                                      | 0                                   | 0                                   | 0                                   | 0                                   | 0                                   | 0                                   | 0                        | 0                        | 0                        | 0                          | 0                                              | 0                            |
| 14. Soil / land quality.                                        | -                                       | -                                          | -                                      | --                                     | -                                   | -                                   | --                                  | -                                   | --                                  | --                                  | --                       | -                        | --                       | --                         | -                                              | -                            |
| 15. Air quality.                                                | -                                       | -                                          | 0                                      | 0                                      | -                                   | -                                   | -                                   | -                                   | -                                   | -                                   | 0                        | -                        | -                        | -                          | -                                              | -                            |
| 16. Water quality and quantity.                                 | ?                                       | ?                                          | ?                                      | ?                                      | ?                                   | ?                                   | ?                                   | ?                                   | ?                                   | ?                                   | ?                        | ?                        | ?                        | ?                          | ?                                              | ?                            |
| 17. Impacts of lorry traffic on the environment and communities | -?                                      | -?                                         | +/-?                                   | +/-?                                   | -?                                  | -?                                  | -?                                  | -?                                  | -?                                  | -?                                  | +                        | -                        | -                        | -?                         | -                                              | -?                           |
| 18. Climate Change.                                             | ?                                       | ?                                          | ?                                      | ?                                      | ?                                   | ?                                   | ?                                   | ?                                   | ?                                   | ?                                   | ?                        | ?                        | ?                        | ?                          | ?                                              | ?                            |

**Table 5.10: Summary of SA scores for potential site options within the Sand & Gravel Severn Vale resource area.**

| SA Objective                                                    | SGTW1 (a)<br>Page's Lane | SGTW1 (b)<br>Page's Lane | SGTW1 (c)<br>Page's Lane | SGTW2 (a)<br>Redpools Farm | SGTW2 (b)<br>Redpools Farm | SGTW2 (c)<br>Redpools Farm | SGTW2 (d)<br>Redpools Farm |
|-----------------------------------------------------------------|--------------------------|--------------------------|--------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| <b>Social</b>                                                   |                          |                          |                          |                            |                            |                            |                            |
| 1. Health and wellbeing.                                        | -?                       | -?                       | -?                       | 0                          | -?                         | 0                          | -?                         |
| 2. Amenity of local communities.                                | -                        | -                        | -                        | 0?                         | -                          | 0?                         | -                          |
| <b>Economic</b>                                                 |                          |                          |                          |                            |                            |                            |                            |
| 3. Sustainable economic development.                            | 0                        | 0                        | 0                        | 0                          | 0                          | 0                          | 0                          |
| 4. Employment opportunities.                                    | +                        | +                        | +                        | +                          | +                          | +                          | +                          |
| 5. Safety of commercial or military aerodromes.                 | 0                        | 0                        | 0                        | 0                          | 0                          | 0                          | 0                          |
| 6. Conservation of minerals resources.                          | 0                        | 0                        | 0                        | 0                          | 0                          | 0                          | 0                          |
| <b>Environmental</b>                                            |                          |                          |                          |                            |                            |                            |                            |
| 7. Biodiversity.                                                | +                        | +                        | +                        | -/+?                       | +                          | 0                          | 0                          |
| 8. Landscape.                                                   | 0?                       | 0?                       | 0?                       | 0?                         | 0?                         | 0?                         | 0?                         |
| 9. Restoration of mineral sites.                                | +                        | +                        | +                        | +                          | +                          | +                          | +                          |
| 10. Material, cultural and recreational assets.                 | -                        | -                        | -                        | -                          | -                          | -                          | -                          |
| 11. Geodiversity.                                               | 0                        | 0                        | 0                        | 0                          | 0                          | 0                          | 0                          |
| 12. Historic environment, heritage assets and their setting.    | -?                       | --?                      | -?                       | -?                         | -?                         | -?                         | -?                         |
| 13. Flooding.                                                   | 0                        | 0                        | 0                        | 0                          | 0                          | 0                          | 0                          |
| 14. Soil / land quality.                                        | -                        | -                        | -                        | 0                          | -                          | -                          | -                          |
| 15. Air quality.                                                | 0                        | 0                        | 0                        | 0                          | 0                          | 0                          | 0                          |
| 16. Water quality and quantity.                                 | ?                        | ?                        | ?                        | ?                          | ?                          | ?                          | ?                          |
| 17. Impacts of lorry traffic on the environment and communities | +                        | +/-?                     | +                        | +/-?                       | +/-?                       | +/-?                       | +/-?                       |
| 18. Climate Change.                                             | ?                        | ?                        | ?                        | ?                          | ?                          | ?                          | ?                          |

## Summary of SA Effects of MLP Consultation Document (June 2014)

- 5.127 The SEA Directive requires that the assessment of effects should include “secondary, cumulative, synergistic, short, medium and long-term, permanent and temporary effects” (SEA Directive Annex I).
- 5.128 Gloucestershire’s MLP Consultation Document (June 2014) sets out how the future minerals development of the County should develop and operate and how the minerals needs of Gloucestershire and the markets it supplies will be met up to 2030. Therefore, this means that the timescales for effects resulting from policies within the MLP Consultation Document (June 2014) could be up to 15 years. In reality, some of the policies may have short-term effects (defined for this SA as over the next 5 years), medium-term effects (defined as over the next 10 years), or long-term effects (defined as over the whole plan period). In many instances, given the generic nature of the policies in the MLP Consultation Document (June 2014), it is difficult to be precise about when, where and in what form the effects will arise, and how one effect might relate to another.
- 5.129 However, it is possible to draw some broad conclusions about the nature and interrelationship of the effects that the SA has identified:
- Most of the effects will be long-term, in that the MLP Consultation Document (June 2014) aims to provide minerals that will last over time. There will inevitably be some temporary and short or medium term effects during the construction or operation of facilities (see below).
  - The effects which have been identified in the appraisal of the MLP Consultation Document (June 2014), both positive and negative, are likely to increase over time, as the policies in the MLP Consultation Document (June 2014) are implemented, and more minerals development is delivered in Gloucestershire, although some operations may be completed as new excavation sites are developed so some effects may balance out.

### Short-term effects of the MLP Consultation Document (June 2014)

- 5.130 The impacts of the MLP Consultation Document (June 2014) in the short-term are mostly related to the initial impacts of commencing minerals extraction. This will include the removal of vegetation, top soil, sub soil, and provision of infrastructure required. Such works could have negative impacts on biodiversity, health and wellbeing, amenity of local communities (possible disruption to rights of way, traffic flows, noise generation, vibration, dust etc.), soil quality, and the landscape. However, these impacts are temporary in nature and some may be minimised through good design, adherence to the policies in the MLP or reversed through restoration measures in the medium to long-term.

### Medium-term effects of the MLP Consultation Document (June 2014)

- 5.131 Medium-term positive impacts relate to the employment and economic benefits of the minerals sites. Negative impacts in the medium-term include the implications of operational minerals extraction sites on health and wellbeing, and the amenity of local communities (e.g. noise, dust, increased traffic etc.). However, as discussed previously in this chapter, these impacts should be avoided or mitigated through good practices by the minerals operators, and adherence to all the policies in the MLP when planning proposals are assessed and determined by GCC.

### Long-term effects of the MLP Consultation Document (June 2014)

- 5.132 Long-term, permanent benefits that would result from the MLP Consultation Document (June 2014) include the provision of sufficient minerals operations to meet Gloucestershire’s needs, potential flood alleviation (e.g. sand and gravel sites in the Cotswolds Water Park resource area), habitat creation and biodiversity enhancement opportunities through the restoration of minerals working sites, or the incorporation and preservation of important geological features within sites. Long-term, permanent negative impacts of the MLP Consultation Document (June 2014) policies are potentially: loss of habitats, areas of best and most versatile agricultural land; climate change implications of the energy required to operate facilities and vehicle movements to minerals; and the disturbance and/or removal of archaeological remains, some of which may be of national significance. However, there may also be some long-term, permanent positive impacts for

biodiversity and landscape through the creation of new habitats, and enhancement of landscape through well designed and implemented restoration of minerals sites; and long term, permanent positive impacts for the historic environment as sites may benefit our understanding of the local archaeology which is found during minerals operations, and aggregates and building stone, for example, could also make a positive contribution towards local vernacular.

### Significant effects of the MLP Consultation Document (June 2014)

- 5.133 As previously discussed in this Chapter a range of significant effects, both positive and negative, are expected as a result of the MLP Consultation Document (June 2014). The relevant elements of the MLP Consultation Document (June 2014) that have the potential to have significant effects on the SA objectives are summarised in **Tables 5.11 and 5.12** below. Potentially significant positive effects (Table 5.11) have been identified for all of the SA objectives from at least one of either the proposed vision, strategic priorities or policies. Potentially significant negative effects (Table 5.12) have only been identified in relation to some of the crushed rock and sand and gravel site options, but none of the proposed policies.

**Table 5.11: Likely significant positive effects of the MLP Consultation Document (June 2014)**

| SA Objective                                   | MLP Consultation Document (2014) - Vision, Strategic Priorities, Policies, Sites                                                                                                                                                                                     |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Social SA Objectives</b>                    |                                                                                                                                                                                                                                                                      |
| 1. Health and wellbeing                        | <ul style="list-style-type: none"> <li>• Buffer Zones</li> </ul>                                                                                                                                                                                                     |
| 2. Amenity of local communities                | <ul style="list-style-type: none"> <li>• Buffer Zones</li> </ul>                                                                                                                                                                                                     |
| <b>Economic SA Objectives</b>                  |                                                                                                                                                                                                                                                                      |
| 3. Sustainable economic development            | <ul style="list-style-type: none"> <li>• Spatial Vision</li> <li>• Strategic Priority 2</li> </ul>                                                                                                                                                                   |
| 4. Employment opportunities                    | <ul style="list-style-type: none"> <li>• Spatial Vision</li> <li>• Strategic Priority 2</li> </ul>                                                                                                                                                                   |
| 5. Safety of commercial or military aerodromes | <ul style="list-style-type: none"> <li>• Safeguarding Aerodromes</li> </ul>                                                                                                                                                                                          |
| 6. Conservation of minerals resources          | <ul style="list-style-type: none"> <li>• Strategic Priority 2 and 6</li> <li>• Proposed Policy for MSAs</li> <li>• Proposed Standing Advice for implementation of the Policy for MSAs</li> <li>• Proposed Safeguarding Policy for Minerals Infrastructure</li> </ul> |
| <b>Environmental SA Objectives</b>             |                                                                                                                                                                                                                                                                      |
| 7. Biodiversity                                | <ul style="list-style-type: none"> <li>• Vision</li> <li>• Strategic Priority 3</li> <li>• Biodiversity and Geodiversity</li> </ul>                                                                                                                                  |
| 8. Landscape                                   | <ul style="list-style-type: none"> <li>• Spatial Vision</li> <li>• Strategic Priority 3</li> <li>• Landscape</li> <li>• Historic Environment</li> <li>• Historic Environment Development Management</li> </ul>                                                       |
| 9. Restoration of mineral sites                | <ul style="list-style-type: none"> <li>• Spatial Vision</li> <li>• Strategic Priority 5</li> <li>• Cotswold Water Park</li> <li>• Restoration</li> <li>• Restoration Development Management</li> </ul>                                                               |
| 10. Material, cultural and recreational assets | <ul style="list-style-type: none"> <li>• Public Rights of Way</li> </ul>                                                                                                                                                                                             |
| 11. Geodiversity                               | <ul style="list-style-type: none"> <li>• Spatial Vision</li> </ul>                                                                                                                                                                                                   |

| SA Objective                                                    | MLP Consultation Document (2014) - Vision, Strategic Priorities, Policies, Sites                                                                                                                                            |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                 | <ul style="list-style-type: none"> <li>Strategic Priority 3</li> <li>Proposed Policy for MSAs</li> <li>Proposed Standing Advice for implementation of the Policy for MSAs</li> <li>Biodiversity and Geodiversity</li> </ul> |
| 12. Historic environment, heritage assets and their setting     | <ul style="list-style-type: none"> <li>Historic Environment</li> <li>Historic Environment Development Management</li> </ul>                                                                                                 |
| 13. Flooding                                                    | <ul style="list-style-type: none"> <li>Spatial Vision</li> </ul>                                                                                                                                                            |
| 14. Soil / land quality                                         | <ul style="list-style-type: none"> <li>Soils</li> </ul>                                                                                                                                                                     |
| 15. Air quality                                                 | <ul style="list-style-type: none"> <li>Sustainable Transport</li> </ul>                                                                                                                                                     |
| 16. Water quality and quantity                                  | <ul style="list-style-type: none"> <li>Water Quality</li> </ul>                                                                                                                                                             |
| 17. Impacts of lorry traffic on the environment and communities | <ul style="list-style-type: none"> <li>Sustainable Transport</li> <li>Borrow Pits</li> </ul>                                                                                                                                |

**Table 5.12: Likely significant negative effects of the MLP Consultation Document (June 2014)**

| SA Objective                                                | MLP Consultation Document (2014) - Vision, Strategic Priorities, Policies, Sites                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Environmental SA Objectives</b>                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 8. Landscape                                                | <ul style="list-style-type: none"> <li>Crushed Rock Forest of Dean Sites: <ul style="list-style-type: none"> <li>CRFD3 (a) Stowfield</li> <li>CRFD4 (a) Hewelsfield</li> </ul> </li> <li>Crushed Rock Cotswolds Sites: <ul style="list-style-type: none"> <li>CRCW1 (a) Daglingworth</li> <li>CRCW2 (a, b, c) Hunstman</li> <li>CRCW3 (a) Three Gates</li> <li>CRCW4 (a) Oathill</li> </ul> </li> </ul>                                                                                                                                                                                                       |
| 10. Material, cultural and recreational assets              | <ul style="list-style-type: none"> <li>Sand and Gravel Costwold Water Park Sites: <ul style="list-style-type: none"> <li>SGCW4 (c, d) Kempsford/Whelford</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 12. Historic environment, heritage assets and their setting | <ul style="list-style-type: none"> <li>Crushed Rock Forest of Dean Sites: <ul style="list-style-type: none"> <li>CRFD3 (a) – Stowfield</li> </ul> </li> <li>Crushed Rock Cotswolds Sites: <ul style="list-style-type: none"> <li>CRCW1 (a) - Daglingworth</li> <li>CRCW2 (a) – Huntsmans</li> </ul> </li> <li>Sand and Gravel Costwold Water Park Sites: <ul style="list-style-type: none"> <li>SGCW4 (a) – Kempsford/Whelford</li> <li>SGCW5 (a) – Down Ampney</li> </ul> </li> <li>Sand and Gravel Severn Vale Sites: <ul style="list-style-type: none"> <li>SGTW1 (b) – Page’s Lane</li> </ul> </li> </ul> |
| 14. Soil / land quality                                     | <ul style="list-style-type: none"> <li>Crushed Rock Forest of Dean Sites: <ul style="list-style-type: none"> <li>CRFD4 (a) – Hewelsfield</li> </ul> </li> <li>Crushed Rock Forest of Dean Sites: <ul style="list-style-type: none"> <li>SGCW3 (b) – Horcott/Lad Lamb Farm</li> <li>SGCW4 (c, e, f) – Kempsford/Whelford</li> <li>SGCW5 (a, c) – Down Ampney</li> <li>SGCW6 (a) – Charlham Farm</li> </ul> </li> </ul>                                                                                                                                                                                         |



### **Cumulative effects of the MLP Consultation Document (June 2014)**

- 5.134 Looking at the summary tables of SA scores above enables a judgement to be made regarding the overall cumulative effects of the MLP Consultation Document (June 2014) on each SA objective.

#### *Social SA Objectives*

- 5.135 A cumulative mixed, minor positive/minor negative effect on SA objectives 1 (Health and wellbeing) and 2 (Amenity of local communities) is likely to result from the MLP Consultation Document (June 2014). While a number of the sites are likely to have minor negative effects on the SA objectives many of them are uncertain, and many of the policies are likely to have minor positive effects, negligible effects or even no effects on these SA objectives.

#### *Economic SA Objectives*

- 5.136 The MLP Consultation Document (June 2014) mainly has either minor positive or no effects on SA Objective 3 (Economic Development), therefore cumulatively it is likely that minor positive effects will occur on this SA objective. Similarly, policies are likely to have either minor positive or no effects on SA Objective 4 (Employment), although all site options are also expected to have minor positive effects on this SA objective. Therefore, cumulative effects on SA objective 4 are considered likely to be minor positive.
- 5.137 All site options in the Sand and Gravel Costwold Water Park resource area are likely to have minor negative effects on SA objective 5 (Aerodrome Safety), however, these are all uncertain as it is dependent on the type of restoration proposed and eventually implemented on a site. All other sites are expected to have no effect on SA objective 5. The MLP Consultation Document (2014) policies that are likely to have effects on SA objective 5, which is not many, are likely to be either minor negative or minor positive. Therefore, cumulative effects on SA objective 5 are considered to be minor negative.
- 5.138 A cumulative significant positive effect on SA objective 6 (Conservation of mineral resources) is likely to result from the MLP Consultation Document (2014), as the policies that are likely to affect this SA objective are expected to either have significant positive or minor positive effects.

#### *Environmental SA Objectives*

- 5.139 The MLP Consultation Document (June 2014) mainly has either positive effects or mixed, minor positive/minor negative effects on SA objective 7 (Biodiversity), many of which are uncertain. Therefore, cumulative effects on SA objective 7 are considered to be mixed, minor positive/minor negative.
- 5.140 All site options are expected to have minor positive effects on SA objective 9 (Mineral site restoration). Similarly, most policies in the MLP Consultation Document (June 2014) are also expected to have positive effects on SA objective 9, in some cases significant effects. Therefore, overall minor positive effects are likely for SA objective 9.
- 5.141 Cumulative mixed, minor positive/minor negative effects are expected for many of the Environmental SA objectives (SA objectives 8, 10, 11, 12, 14, 15 and 17). While a number of sites are expected to have minor negative effects, and even significant negative effects on these SA objectives (e.g. SA objective 8 – Landscape, and SA objective 14 – Soil / land quality); many of the MLP Consultation Document's (June 2014) proposed policies are expected to have positive effects, in some cases significant, on the SA objectives (e.g. SA objective 8 – Landscape, SA objective 9 – Mineral site restoration, and SA objective 12 – Historic environment and heritage assets) or mixed, minor positive/minor negative effects.
- 5.142 None of the site options are likely to affect SA objective 13 (Flooding), however, many of the MLP Consultation Document policies are likely to have either minor positive or mixed no effect/minor positive effects on SA objective 13. Therefore, cumulative mixed, no effect/minor positive effects on SA objective 13 (Flooding) are likely to result from the MLP Consultation Document (June 2014).
- 5.143 Cumulatively, the MLP Consultation Document (June 2014), is likely to have minor positive effects on SA objectives 16 (Water quality and quantity) and 18 (Climate change). While some policies in

the MLP Consultation Document (June 2014) are expected to have minor positive effects on these SA objectives, at this stage in the planning process it has is not possible to determine the impacts of the minerals sites or some policies on these SA objectives as it will depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage.

## 6 Monitoring

- 6.1 The SEA Directive requires that "*member states shall monitor the significant environmental effects of the implementation of plans or programmes... in order, inter alia, to identify at an early stage, unforeseen adverse effects, and be able to undertake appropriate remedial action*" (Article 10.1) and that the environmental report should provide information on "*a description of the measures envisaged concerning monitoring*" (Annex 1 (i)). Monitoring proposals should be designed to provide information that can be used to highlight specific issues and significant effects, and which could help decision-making.
- 6.2 The Planning Advisory Service guidance on SA states that it is not necessary to monitor everything. Instead, monitoring should be focused on the significant sustainability effects that may give rise to irreversible damage (with a view to identifying trends before such damage is caused) and the significant effects where there is uncertainty in the SA and where monitoring would enable preventative or mitigation measures to be taken.
- 6.3 As discussed in **Chapter 5** and shown in **Tables 5.11** and **5.12**, a number of the policies and site options included in the MLP Consultation Document (June 2014) could have potential significant positive or negative effects on the SA objectives. Therefore, it is recommended that monitoring is undertaken to determine whether these effects do indeed occur due to implementation of the MLP, and in order to seek to remedy or reverse them.
- 6.4 **Table 6.1** sets out a number of suggested indicators for monitoring the potential effects of implementing the MLP. In order to make best use of existing monitoring arrangements, a number of indicators have been drawn from Gloucestershire's Minerals and Waste Authority Monitoring Report 2011 - 2012<sup>30</sup>. Note that the indicators proposed are included as suggestions, as to date GCC have not drafted any potential monitoring indicators for the MLP. Therefore, the indicators included in **Table 6.1** may change at subsequent stages of the MLP preparation as GCC finalises its monitoring framework.

**Table 6.1: Suggested framework for monitoring potential significant sustainability effects arising from implementation of the Gloucestershire MLP Consultation Document (June 2014)**

| SA objectives for which potential significant effects have been identified | Policies and Sites that are likely to lead significant effects | Proposed indicators                                                                                                                                                                                                                                                                                |
|----------------------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Social SA Objectives</b>                                                |                                                                |                                                                                                                                                                                                                                                                                                    |
| 1. Health and wellbeing                                                    | <ul style="list-style-type: none"> <li>Buffer Zones</li> </ul> | <p>The number and % of all permitted minerals applications that were for operational 'improvements' to existing sites that would reduce the risk to public health.</p> <p>The number and % of all minerals refusals where concerns over public health acted as part of the reason for refusal.</p> |
| 2. Amenity of local communities                                            | <ul style="list-style-type: none"> <li>Buffer Zones</li> </ul> | <p>The number and % of minerals permissions, which include conditions relating to: Noise, hours of operations, traffic and lighting.</p> <p>The number and % of minerals refusals where amenity was cited within the reason for refusal.</p>                                                       |

<sup>30</sup> Available at: <http://www.gloucestershire.gov.uk/extra/CHttpHandler.ashx?id=55902&p=0>

| SA objectives for which potential significant effects have been identified | Policies and Sites that are likely to lead significant effects                                                                                                                                                                                                                                                                                                                                                                | Proposed indicators                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Economic SA Objectives</b>                                              |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 3. Sustainable economic development                                        | <ul style="list-style-type: none"> <li>Spatial Vision</li> <li>Strategic Priority 2</li> </ul>                                                                                                                                                                                                                                                                                                                                | <p>Annual production of minerals.</p> <p>Permitted reserves of minerals.</p> <p>Amount/% of minerals consumed locally/imported per year by type.</p>                                                                                                                                                                                                                                                              |
| 4. Employment opportunities                                                | <ul style="list-style-type: none"> <li>Spatial Vision</li> <li>Strategic Priority 2</li> </ul>                                                                                                                                                                                                                                                                                                                                | <p>Number of new minerals developments permitted during the monitoring period. 'New' in this context only relates to brand new facilities and does not include extended, expanded or revised minerals operations.</p> <p>Employment in the Minerals sector in Gloucestershire.</p>                                                                                                                                |
| 5. Safety of commercial or military aerodromes                             | <ul style="list-style-type: none"> <li>Safeguarding Aerodromes</li> </ul>                                                                                                                                                                                                                                                                                                                                                     | <p>Number of minerals developments permitted within aerodrome safeguarding areas.</p>                                                                                                                                                                                                                                                                                                                             |
| 6. Conservation of minerals resources                                      | <ul style="list-style-type: none"> <li>Strategic Priority 2 and 6</li> <li>Proposed Policy for MSAs</li> <li>Proposed Standing Advice for implementation of the Policy for MSAs</li> <li>Proposed Safeguarding Policy for Minerals Infrastructure</li> </ul>                                                                                                                                                                  | <p>The number and % of minerals developments permitted upon existing sites or Preferred Areas identified within the Minerals Plan.</p> <p>The number of non-minerals developments permitted upon Preferred Areas identified within the adopted Minerals Local Plan.</p> <p>Number of non-mineral applications determined for sites within Mineral Safeguarding Areas, which required a minerals consultation.</p> |
| <b>Environmental SA Objectives</b>                                         |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 7. Biodiversity                                                            | <ul style="list-style-type: none"> <li>Vision</li> <li>Strategic Priority 3</li> <li>Biodiversity and Geodiversity</li> </ul>                                                                                                                                                                                                                                                                                                 | <p>The number of minerals proposals determined upon international, national and local environmental designations.</p> <p>The number and % of minerals and refusals where environmental matters such as designated sites, were cited in the refusal reasons.</p> <p>The number and % of all permitted minerals applications that included conditions related to ecology and biodiversity.</p>                      |
| 8. Landscape                                                               | <ul style="list-style-type: none"> <li>Spatial Vision</li> <li>Strategic Priority 3</li> <li>Landscape</li> <li>Historic Environment</li> <li>Historic Environment Development Management</li> <li>Crushed Rock Forest of Dean Sites: CRFD3 (a) Stowfield; CRFD4 (a) Hewelsfield</li> <li>Crushed Rock Cotswolds Sites: CRCW1 (a) Daglingworth; CRCW2 (a, b, c) Hunstman; CRCW3 (a) Three Gates; CRCW4 (a) Oathill</li> </ul> | <p>The number of minerals proposals determined upon international, national and local environmental designations.</p> <p>The number and % of minerals refusals where environmental matters such as landscape or designated sites, were cited in the refusal reasons.</p>                                                                                                                                          |

| SA objectives for which potential significant effects have been identified | Policies and Sites that are likely to lead significant effects                                                                                                                                                                                                                                                                                                                                                                                                       | Proposed indicators                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9. Restoration of mineral sites                                            | <ul style="list-style-type: none"> <li>Spatial Vision</li> <li>Strategic Priority 5</li> <li>Cotswold Water Park</li> <li>Restoration</li> <li>Restoration Development Management</li> </ul>                                                                                                                                                                                                                                                                         | The number and % of mineral permissions that include conditions concerning the delivery of mineral restoration schemes.                                                                                                                                                                                                                                                                                                                                                                                                              |
| 10. Material, cultural and recreational assets                             | <ul style="list-style-type: none"> <li>Public Rights of Way</li> <li>Sand and Gravel Costwold Water Park Sites: SGCW4 (c, d) Kempsford/Whelford</li> </ul>                                                                                                                                                                                                                                                                                                           | The number and % of mineral permissions proposing the loss of material, cultural and recreational assets.                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 11. Geodiversity                                                           | <ul style="list-style-type: none"> <li>Spatial Vision</li> <li>Strategic Priority 3</li> <li>Proposed Policy for MSAs</li> <li>Proposed Standing Advice for implementation of the Policy for MSAs</li> <li>Biodiversity and Geodiversity</li> </ul>                                                                                                                                                                                                                  | The number of minerals proposals determined designations e.g. RIGS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 12. Historic environment, heritage assets and their setting                | <ul style="list-style-type: none"> <li>Historic Environment</li> <li>Historic Environment Development Management</li> <li>Crushed Rock Forest of Dean Sites: CRFD3 (a) – Stowfield</li> <li>Crushed Rock Cotswolds Sites: CRCW1 (a) – Daglingworth; CRCW2 (a) – Huntsmans</li> <li>Sand and Gravel Costwold Water Park Sites: SGCW4 (a) – Kempsford/Whelford; SGCW5 (a) – Down Ampney</li> <li>Sand and Gravel Severn Vale Sites: SGTW1 (b) – Page's Lane</li> </ul> | <p>The number and % of all permitted minerals applications that included conditions related to archaeology.</p> <p>Number and % of Listed Buildings and Scheduled Ancient Monuments on Buildings at Risk Register (English Heritage)</p> <p>The need for, frequency and outcomes of planning enforcement investigations/ planning appeals concerning aspects of the historic environment, such as damage or pollution affecting the historic environment, or the loss of locally important buildings within a conservation area.</p> |
| 13. Flooding                                                               | <ul style="list-style-type: none"> <li>Spatial Vision</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                     | <p>The number and % of minerals permissions located upon designated floodplain land.</p> <p>The number and % of minerals refusals where the floodplain acted as part of the reason for the refusal.</p>                                                                                                                                                                                                                                                                                                                              |
| 14. Soil / land quality                                                    | <ul style="list-style-type: none"> <li>Soils</li> <li>Crushed Rock Forest of Dean Sites: CRFD4 (a) – Hewelsfield</li> <li>Crushed Rock Forest of Dean Sites: SGCW3 (b) – Horcott/Lad Lamb Farm; SGCW4 (c, e, f) – Kempsford/Whelford; SGCW5 (a, c) – Down Ampney; SGCW6 (a) – Charlham Farm</li> </ul>                                                                                                                                                               | The number and % of all minerals refusals where environmental protection acted as part of the reason for refusal.                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 15. Air quality                                                            | <ul style="list-style-type: none"> <li>Sustainable Transport</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                              | <p>The number and % of minerals approvals that included conditions concerning air pollution control.</p> <p>The number and % of all minerals refusals where environmental protection acted as part of the</p>                                                                                                                                                                                                                                                                                                                        |

| SA objectives for which potential significant effects have been identified | Policies and Sites that are likely to lead significant effects                               | Proposed indicators                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 16. Water quality and quantity                                             | <ul style="list-style-type: none"> <li>Water Quality</li> </ul>                              | <p>reason for refusal.</p> <p>The number and % of minerals refusals where safeguarding water supplies acted as part of the reason for the refusal.</p> <p>The number and % of minerals approvals that included conditions concerning water pollution control.</p> <p>The number and % of all minerals refusals where environmental protection acted as part of the reason for refusal.</p> |
| 17. Impacts of lorry traffic on the environment and communities            | <ul style="list-style-type: none"> <li>Sustainable Transport</li> <li>Borrow Pits</li> </ul> | <p>The number and % of minerals permissions that included one or more of the following highway conditions: Restricted vehicle numbers; Restricted tonnages; Restricted routings; and Highway mitigation measures – the need for wheel washing, lorry sheeting etc.</p> <p>The number and % of all minerals refusals, where highways was cited as part of the reason for refusal.</p>       |

## 7 Conclusions

- 7.1 The policies and site options in the MLP Consultation Document (June 2014) have been subject to a detailed appraisal against the SA objectives which were developed at the scoping stage of the SA process.
- 7.2 The MLP Consultation Document (June 2014) provides well-reasoned proposed policies and a clear guide to minerals development based on sound sustainable development principles. In general, the MLP Consultation Document (June 2014) has been found to have a wide range of positive and significant positive effects on the SA objectives, although significant negative and a number of minor negative effects have also been identified (mainly in relation to the use of particular sites for crushed rock or sand and gravel extraction). The severity of these impacts will depend very much on the exact location of the proposed development, its proximity to sensitive receptors, and its nature and scale, which may not be known until the planning application stage. Site options have been identified for minerals development through a comprehensive site selection methodology undertaken by the Council, by doing so the Council has sought to minimise the potential sustainability effects of minerals development in Gloucestershire. In addition, when the MLP Consultation Document (June 2014) is considered as a whole, and alongside the other documents in the MWDP, the SA team consider that all of the policies will work together to reduce the negative effects of minerals development.
- 7.3 We have inevitably had to make assumptions in coming to judgements of the effects of the MLP Consultation Document (June 2014). Our assumption with respect to effects, cumulative or otherwise, is on the basis of the intention of the MLP Consultation Document (June 2014) i.e. what it is trying to achieve. Past experience suggests that, when considering development proposals, there will often be tensions when applying different policies, and deciding where weight should apply. Despite the best intentions of the planning authority, it may not always be possible to deliver development that meets all policy criteria and good practice guidance, and difficult choices will often have to be made.

## **Appendix 1**

Summary of consultation responses received during the Gloucestershire Minerals Local Plan SA Scoping Report consultation (March – May 2013)



| Respondent                      | Section      | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | How/where consultation comments have been addressed     |                                                         |
|---------------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------|
|                                 |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | SA Scoping Report – Update 4 (July 2013)                | Gloucestershire MLP Consultation Document (June 2014)SA |
| Tewkesbury Borough Council (BC) | Pg.9 & pg.96 | Reference should be to the 'Tewkesbury Borough Local Plan to 2011', which comprises the extant development plan policies for the borough until replaced by the Joint Core Strategy (JCS) (anticipated adoption 2014) and the Tewkesbury Borough Plan (anticipated adoption 2015). The latter is intended to sit beneath the strategic JCS to cover non-strategic issues of local importance in the borough. A similar hierarchy of plans is also being pursued by Cheltenham and Gloucester.                                                                                                                                                                                    | Table 1, Section 5. Appendix 2.                         | Table 3.1, Chapter 3. Appendix 3.                       |
| Tewkesbury BC                   | Section 5    | Reference should be made to the emerging JCS (for Gloucester, Cheltenham and Tewkesbury) rather than to 'local development frameworks'. The evidence on housing numbers referred to in the assessment of housing needs will be of use in preparing your baseline evidence, although these are still subject to agreement by the three councils. The JCS production timeframe is fairly dynamic with the latest schedule set out on the JCS website. The sustainability appraisal work for the JCS is on-going but you may find some of the objectives and indicators of use. Further updating will take place with regards the preferred options consultation in July/Aug 2013. | Table 1, Section 5. Appendix 2.                         | Table 3.1, Chapter 3. Appendix 3.                       |
| Tewkesbury BC                   | Section 5    | Additionally, TBC are preparing a flood and water management supplementary planning document which, for completeness, should be included in the list of documents in section 5. Initial discussions have taken place with the County (David Lesser), Environment Agency and key local stakeholders. An initial draft is anticipated imminently with public consultation in the summer 2013 and adoption in autumn 2013.                                                                                                                                                                                                                                                         | Not available for inclusion in Scoping report Update 4. | Table 3.1, Chapter 3. Appendix 3.                       |
| Gloucester City Council         | Section 5    | Having looked at the revised Scoping Report (2013) I notice that it makes no mention at the Plans Policies and Programmes Section of the evidence base that is publicly available on the Gloucester, Cheltenham and Tewkesbury Joint Core Strategy (JCS) website at <a href="http://www.gct-jcs.org">www.gct-jcs.org</a> ,                                                                                                                                                                                                                                                                                                                                                      | Table 1, Section 5. Appendix 2.                         | Table 3.1, Chapter 3. Appendix 3.                       |

| Respondent                                     | Section | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | How/where consultation comments have been addressed |                                   |
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|                                                |         | nor does it refer to any of the JCS consultation documents. With regard to Gloucester City Council documentation the current Community Strategy is known as the "City Vision" and the Gloucester City Plan is in the process of updating the 2002 2nd Deposit Local Plan and emerging Local Development Framework documents. I would be grateful if the above matters could be taken into consideration as part of your consultation.                                                                                                                                                               |                                                     |                                   |
| Gloucestershire County Council (GCC) - Ecology | Pg.7    | (International) suggest under international the EU Biodiversity Strategy to 2020 is added<br><a href="http://ec.europa.eu/environment/nature/biodiversity/comm2006/2020.htm">http://ec.europa.eu/environment/nature/biodiversity/comm2006/2020.htm</a>                                                                                                                                                                                                                                                                                                                                              | Table 1, Section 5. Appendix 2.                     | Table 3.1, Chapter 3. Appendix 3. |
| GCC – Ecology                                  | Pg.8    | (National) DELETE 'UK Biodiversity Plan', 'Working with the Grain of Nature: A Bio-diversity Strategy for England' and 'The Conservation of Habitats and Species (Amendment) Regulations 2012'.<br><br>ADD 'The Conservation of Habitats and Species Regulations 2010 (as amended)' and 'Biodiversity 2020 – A strategy for England's wildlife and ecosystem services'.<br><br>Consider ADDING 'National Character Area Profiles – Natural England' see <a href="http://www.naturalengland.org.uk/publications/nca/default.aspx">http://www.naturalengland.org.uk/publications/nca/default.aspx</a> | Table 1, Section 5. Appendix 2.                     | Table 3.1, Chapter 3. Appendix 3. |
| GCC – Ecology                                  | Pg.8    | (Regional) all documents in here subject to deletion from my perspective KEEP 'South West Nature Map' but DELETE 'South West Biodiversity Implementation Plan'.                                                                                                                                                                                                                                                                                                                                                                                                                                     | Table 1, Section 5. Appendix 2.                     | Table 3.1, Chapter 3. Appendix 3. |
| GCC – Ecology                                  | Pg.9    | (Local) DELETE 'Biodiversity Action Plan for Gloucestershire' but ADD 'Gloucestershire Biodiversity Framework & Delivery Plan 2010' – see <a href="http://gloucestershirebiodiversity.net/actionplan/index.php">http://gloucestershirebiodiversity.net/actionplan/index.php</a>                                                                                                                                                                                                                                                                                                                     | Table 1, Section 5. Appendix 2.                     | Table 3.1, Chapter 3. Appendix 3. |

| Respondent    | Section    | Comment                                                                                                                                                                                                                                                                                                                                                                                                               | How/where consultation comments have been addressed |                       |
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| GCC – Ecology | Pg.11      | Biodiversity) ADD a bullet point – ‘Impacts on ecosystem services such as flood defence, water purification, soil formation and pollination’. This might however be woven into the two bullet points – ‘Changes in soil conditions and or quality’ and ‘Changes in the quality of air and water. Pollution potential in terms of noise, vibration, light, dust.’                                                      | Table 2, Section 6.                                 | Table 3.2, Chapter 3. |
| GCC – Ecology | Pg.18      | (Item 12) REPLACE ‘Gloucestershire Biodiversity Action Plan (BAP)’ with ‘Gloucestershire Biodiversity Framework & Delivery Plan’                                                                                                                                                                                                                                                                                      | Table 3, Section 7.                                 | Table 3.3, Chapter 3. |
| GCC – Ecology | Pg.18      | (Item 13) REPLACE first sentence with: Biodiversity decline: The priority species on the English List relevant to Gloucestershire are referenced on the Gloucestershire Biodiversity website at: <a href="http://gloucestershirebiodiversity.net/actionplan/priority-species.php">http://gloucestershirebiodiversity.net/actionplan/priority-species.php</a>                                                          | Table 3, Section 7.                                 | Table 3.3, Chapter 3. |
| GCC – Ecology | Pg.18      | Under ‘Bird populations’ DELETE ‘(The specifics are contained in the Gloucestershire BAP)’                                                                                                                                                                                                                                                                                                                            | Table 3, Section 7.                                 | Table 3.3, Chapter 3. |
| GCC – Ecology | Appendix 1 | Needs UPDATING to reflect suggested deletions and additions above. I can help with ‘Gloucestershire Biodiversity Framework & Delivery Plan’ which replaces the Gloucestershire BAP. The rest you can fill in the table with information from the documents concerned and/or websites.                                                                                                                                 | Appendix 1                                          | Appendix 3            |
| GCC – Ecology | Appendix 2 | (Other Baseline Information) (Biodiversity) Page 126 – EDIT first sentence to read: As a rural county Gloucestershire is relatively rich in habitats and species and much has been achieved through the Biodiversity Action Plan (BAP) process and ongoing through the new Local Nature Partnership, see: <a href="http://www.gloucestershirebap.org.uk/">http://www.gloucestershirebap.org.uk/</a> for more details. | Appendix 2, Page 114.                               | Appendix 4.           |
| GCC – Ecology | Pg.127     | REPLACE map of European Sites with this one from the latest HRA Baseline Update 3 report.                                                                                                                                                                                                                                                                                                                             | Appendix 2, Page 115.                               | Appendix 4.           |
| GCC – Ecology | Pg.128     | (Paragraph 1, last sentence) REPLACE with: Four SSSI areas have been additionally designated as National Nature Reserves (NNRs).                                                                                                                                                                                                                                                                                      | Appendix 2, Page 116.                               | Appendix 4.           |

| Respondent    | Section | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | How/where consultation comments have been addressed |             |
|---------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|-------------|
| GCC – Ecology | Pg.129  | DELETE last two sentences of the first paragraph under the AONB map as ESAs no longer exist as such due to new agri-environment schemes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Appendix 2, Page 117.                               | Appendix 4. |
| GCC – Ecology | Pg.129  | Map 4 of Key Wildlife Sites is missing use this one below/next page                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Appendix 2, Page 118.                               | Appendix 4. |
| GCC – Ecology | Pg.134  | <p>Page 134 (Flora and Fauna) REPLACE all text under this heading with amended updated text below:</p> <p>Flora and Fauna - Despite the large number of statutory and local designations, Gloucestershire has suffered from large-scale habitat and species loss over the last 50 years. This has largely been due to changes in farming practices. Among the species that have suffered from decline are farmland birds. At present approximately 100 species identified in the as UK priority species are thought to occur in Gloucestershire. Many of these species are also listed for protection under the European Union Habitats Directive including: the European Otter, the Dormouse, the Lesser Horseshoe and Greater Horseshoe Bat and the Pipistrelle Bat. Over 60 bird species listed under the EU Birds Directive have been recorded in Gloucestershire. Wetlands areas such as the Severn Estuary, Slimbridge Wildfowl Centre and the Cotswolds Water Park centre provide important habitats for over-wintering and migratory birds.</p> <p>In terms of the protection of flora and fauna, under Section 41(3) of the Natural Environment and Rural Communities Act 2006 (NERC) the Secretary of State must take steps (where they are reasonably practicable), and promote the taking of steps by others, to further the conservation of certain listed habitats and species. In light of this duty, seven sectors have been identified where actions taken by public bodies and other stakeholders could deliver significant conservation benefits for the habitats and species on the list. The English List is available on the Natural England website at:<br/> <a href="http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/habsandspeciesimportance.aspx">http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/habsandspeciesimportance.aspx</a></p> <p>The Gloucestershire Biodiversity Framework &amp; Delivery Plan 2010 provides a basis for the conservation of local biodiversity which targets</p> | Appendix 2, Page 123.                               | Appendix 4. |

| Respondent        | Section | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | How/where consultation comments have been addressed |                       |
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|                   |         | the conservation, enhancement and creation of priority habitats within the Gloucestershire Nature Map. The Gloucestershire Nature Map consists of a number of priority areas called Strategic Nature Areas (SNAs). When viewed alongside the rivers targeted by the Environment Agency through the Water Framework Directive process the Gloucestershire Nature Map represents a strategic ecological network for Gloucestershire. Additional to the county approach the Cotswold Water Park Biodiversity Action Plan 2007-2016 provides detailed information and biodiversity targets for the south west corner of the County and into Wiltshire and Swindon which can be found at:<br><a href="http://www.waterpark.org/wp-content/uploads/2013/01/FINALCWP-BAP-2007-16-v8print.pdf">http://www.waterpark.org/wp-content/uploads/2013/01/FINALCWP-BAP-2007-16-v8print.pdf</a> |                                                     |                       |
| GCC - Ecology     | Pg.145  | (Landscape) (1st paragraph) (3rd sentence) – replace 'natural' with 'priority'.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Appendix 2, page 132.                               | Appendix 4.           |
| GCC - Ecology     | Pg.148  | (Item 7) delete '(From PPS10 Annex E)'                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Appendix 3.                                         | Table 4.1, Chapter 4. |
| GCC - Archaeology |         | Plans, policies etc. referenced in the text – omissions: Although PPS 5 Planning for the Historic Environment is now superseded by the NPPF, the practice guide that accompanied it is still in force and will presumably remain so until government determines what further guidance it will issue to support the NPPF. The practice guide should therefore be referenced in the text and can be found at: <a href="http://www.english-heritage.org.uk/publications/pps-practice-guide/">http://www.english-heritage.org.uk/publications/pps-practice-guide/</a><br><br>The Minerals and Waste Core Strategies Joint Technical Evidence Paper WCS- MCS-6 section 6 lists a number of other information sources regarding the historic environment of the county that should be referenced as well.                                                                             | Appendix 1.                                         | Appendix 3.           |
| GCC - Archaeology |         | <b>Historic Environment statistics</b> - These need to be updated at Table 3 no 15, and on page 144 as follows: Scheduled Monuments: 602, Listed Buildings: 13432, Conservation Areas: 287 (6901 ha), Other archaeological sites/structures/buildings: 24,962.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Table 3, Section 7.                                 | Table 3.3, Chapter 3. |

| Respondent        | Section | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | How/where consultation comments have been addressed                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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| GCC - Archaeology |         | <b>Appendix 2 Baseline information pages 144-5</b> - The description of the historic environment here is rather thin. Section 2 of the Minerals and Waste Core Strategies Joint Technical Evidence Paper WCS-MCS-6 contains some useful material at Section 6 that could be used for this purpose.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Appendix 2, page 131.                                                                                                                                         | Appendix 4.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| GCC - Archaeology |         | <b>Appendix 3 Question 12</b> - This currently covers only those sites which are designated. It should include reference to other archaeological sites and the wider historic landscape.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Appendix 3.                                                                                                                                                   | Table 4.1, Chapter 4.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| English Heritage  |         | <p><b>General Principles</b> - There are a number of general principles that English Heritage recommends are considered throughout this SA process:</p> <ul style="list-style-type: none"> <li>· The importance of a broad definition of the historic environment covering a wide range of heritage assets<sup>31</sup> including areas, buildings, features and landscapes with statutory protection, together with those parts of the historic environment which are locally valued and important, and also the historic character of the landscape and townscape* <i>[Note that the asterisk refers to the section of EH's letter called "Designation and Beyond – see below.].</i></li> <li>· Heritage assets and the wider historic environment are finite resources that are irreplaceable.</li> <li>· The historic environment is more than an environmental and cultural asset; it is an important driver for economic development and delivering social objectives. The historic environment contributes positively to all aspects of sustainable development.</li> <li>· The concept of significance requires careful consideration in the context of the historic environment and the SA process, which is focused on the identification and assessment of 'significant effects'.</li> </ul> | Some of these general principles have been reflected in Tables 2, 3, 4/Sections 6, 7, 8/Appendices 1 and 2, and will continue to inform each stage in the SA. | The general principles provided by English Heritage are very useful and have been reflected in the SA work and SA Report as follows: the description of environmental baseline (Chapter 3 and Appendix 4); the SA Framework (Table 4.1, Objectives 10 and 12); and the assumptions used for defining significant effects (see Table 4.2); cumulative effects and mitigation measures have also been considered (see Chapter 5 and Appendix 6); the expertise of GCC's archaeology team has also been drawn on as GCC's in-house site assessment findings have helped to inform the SA of the potential mineral sites (Chapter 5 and Appendix 6). Recommendations |

<sup>31</sup> The National Planning Policy Framework (2012) defines a Heritage Asset as 'A building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest. Heritage asset includes designated heritage assets and assets identified by the local planning authority (including local listing).' Designated heritage assets are listed as 'A World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Park and Garden, Registered Battlefield or Conservation Area designated under the relevant legislation.' The Directive uses the term 'cultural heritage', which covers all aspects of the historic environment as defined by the NPPF. In addition, 'significant effects' on historic landscapes and townscapes might be addressed under the Directive issue of landscape.

Gloucestershire Minerals Local Plan SA

| Respondent       | Section | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | How/where consultation comments have been addressed |                                                                                                   |
|------------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|---------------------------------------------------------------------------------------------------|
|                  |         | <ul style="list-style-type: none"> <li>· The National Planning Policy Framework (NPPF) requires that heritage assets are conserved in a manner appropriate to their significance. The concept of significance in relation to heritage refers to the value of a heritage asset, because of its heritage interest which may be archaeological, architectural, artistic or historic. The setting of a heritage asset can also contribute to its significance.</li> <li>· The SA process is iterative in that the findings of each stage should be used to inform the next and this progression is clearly documented.</li> <li>· The assessment of potential impacts on the historic environment and heritage assets should include the consideration of cumulative effects.</li> <li>· An effective SA should avoid or minimise any adverse effects created by the plan in respect of the historic environment. It should also maximise potential benefits for the historic environment.</li> <li>· All appropriate mitigation, enhancement and monitoring for the historic environment and heritage assets should be clearly identified for delivery at the implementation stage.</li> <li>· Local authority conservation and archaeological staff are a key resource when developing a SA. These professionals are best placed to provide baseline information on the historic environment and heritage assets and advise on: <ul style="list-style-type: none"> <li>o The significance of heritage assets;</li> <li>o Local historic environment issues and priorities;</li> <li>o How a policy or proposal can be tailored to avoid or minimise potential adverse impacts on the historic environment;</li> <li>o The nature and design of any required mitigation measures; and</li> <li>o Opportunities for securing wider benefits for the future conservation and management of heritage assets.</li> </ul> </li> </ul> |                                                     | for monitoring have also been described (see Chapter 6).                                          |
| English Heritage |         | <b>*Designation and Beyond</b> - The historic environment includes all aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Noted.                                              | As far as possible the SA process has sought to consider all aspects of the historic environment, |

| Respondent       | Section | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | How/where consultation comments have been addressed                                                                                          |                                                                                                                                                                                                                                                                                                                 |
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|                  |         | human activity, whether visible, buried or submerged, including landscaped, planted or managed flora. Consequently, covering statutory designations is just one part of the baseline information on this topic. Other important considerations include: information held on Historic Environment Records; locally listed heritage assets; the character of the wider historic landscape, townscape or seascape and other valued historic landscapes; areas of archaeological importance and the potential for unrecorded archaeology. The condition of the historic environment is an important consideration, especially when analysing and updating the baseline and monitoring frameworks. Existing data sources include the English Heritage 'Heritage at Risk' Register, which includes Grade I and II* listed buildings at risk, (also Grade II listed buildings at risk in London), scheduled monuments, registered parks and gardens, registered battlefields, conservation areas and protected wreck sites: <a href="http://risk.englishheritage.org.uk/register.aspx">http://risk.englishheritage.org.uk/register.aspx</a> Appendix 1 to this letter provides an extensive list of sources for a wide variety of historic environment information. |                                                                                                                                              | although this can be difficult in a strategic level assessment that is not as detailed as a site-specific Environmental Impact Assessment, as specific proposals for development at a site are unknown. The SA assumptions table (Table 4.2) sets out how the historic environment data sources have been used. |
| English Heritage |         | <p><b>Scoping</b> - You should reassure yourself that at this scoping stage you have demonstrated the report has:</p> <ol style="list-style-type: none"> <li>1. Established the baseline for the historic environment, including any trends and targets and gaps in the existing information;</li> <li>2. Identified sustainability issues and opportunities for the historic environment and heritage assets – <i>don't forget the potential impact on the setting of all heritage assets;</i></li> <li>3. Developed sustainability appraisal objectives – <i>again consider a broad definition not just archaeology and architecture;</i></li> <li>4. Identified indicators and targets;</li> <li>5. Considered how alternatives will be assessed;</li> <li>6. Provided sufficient information on the proposed methodology for the appraisal to assess whether effects upon the historic environment will be properly addressed.</li> </ol>                                                                                                                                                                                                                                                                                                                | Noted. These points have been reflected in Tables 2, 3, 4/Sections 6, 7, 8, and Appendix 2 and will continue to inform each stage in the SA. | Noted, as above, the SA Report has sought to address these points, as set out in Chapters 3, 4 and 5 and Appendices 2, 3, 4).                                                                                                                                                                                   |



| Respondent       | Section | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | How/where consultation comments have been addressed |                                                                                                                    |
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| English Heritage |         | <p><b>1. Baseline information</b> - English Heritage recommends that the baseline information describes the current and future likely state of the historic environment. This provides the basis for:</p> <ul style="list-style-type: none"> <li>· identifying sustainability issues;</li> <li>· predicting and monitoring effects; and</li> <li>· identifying alternative solutions.</li> </ul> <p>Maps, charts (current and historic) and photographs and other images can be very effective in synthesising data and illustrating its relevance to the plan area as well as demonstrating historic environment effects, particularly where supported by an analytical narrative. When collating and analysing the baseline data on the historic environment, it is also useful to identify relevant trends and targets. This process can be informed by the plan review and drawn from national, sub-national and local data sets. Baseline information can be both quantitative and qualitative, and needs to be kept up-to-date. There may also be a need to look at the wider geographic area in order to assess the likely significant environmental effects on the historic environment and heritage assets (e.g. traffic generation, setting issues). It is important that meaningful conclusions can be drawn from the baseline information, particularly what it means for the plan and how the historic environment is to be dealt with. Where there are gaps in information, we recommend that these are explained as part of the baseline description. Ways of tackling any identified gaps in the baseline can then be included in proposals for monitoring the implementation of the plan.</p> <p>Are you reassured the above information has been gathered, understood and applied?</p> <p>To determine the adequacy and scope of the baseline information available, English Heritage recommends that you are able to positively respond to the following questions:</p> <p>Which parts of the Gloucestershire are rich in heritage assets (designated and non-designated)?</p> <p>Are there areas which may have the potential for sites of historic or</p> | Table 2, Section 6. Appendix 2.                     | Noted, as above, the SA Report has sought to address these points, as set out in Table 3.2, Chapter 3. Appendix 4. |

| Respondent       | Section | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | How/where consultation comments have been addressed                                 |                                                                                                                              |
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|                  |         | <p>archaeological interest which are currently unidentified?</p> <p>Has the landscape character of the plan area been defined, if so, what are its distinctive features?</p> <p>In what ways does the historic environment contribute to local character and distinctiveness?</p> <p>Are there any areas where minerals workings are affecting the distinctive character of the place and the significance of heritage assets, including cumulative, small-scale changes?</p> <p>Are there expected to be such effects in the future?</p> <p>Are there implications for the setting of heritage assets?</p> <p>In what ways does the historic environment deliver other social, cultural, economic and environmental benefits?</p> <p>Which areas or features should be conserved or enhanced?</p> <p>How good or bad is the condition or quality of heritage assets and historic places?</p> <p>Do trends show that it is getting better or worse?</p> <p>Are heritage assets at risk from damage or neglect?</p> <p>How far is the current situation from any established thresholds or targets?</p> <p>Are existing problems reversible or irreversible, permanent or temporary?</p> |                                                                                     |                                                                                                                              |
| English Heritage |         | <p><b>Sustainability issues</b> - Analysis of such baseline information for the historic environment will help identify sustainability issues relating to the historic environment. There is a need to understand the contribution of the historic environment to sustainable development and its role in delivering wider social, cultural, economic and environmental benefits. For example, heritage-led regeneration can provide opportunities for sustainable tourism, leisure and recreation activities, and help to strengthen the character of a place. Environmental problems, issues and opportunities affecting the historic environment, and to be addressed in</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Noted. The updated Scoping Report addresses these points, covering them in Table 2, | The SA seeks to address these points. For example: Table 3.3, Chapter 3, Table 4.1, Chapter 4 and Chapter 5, and Appendix 4. |

| Respondent | Section | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | How/where consultation comments have been addressed |  |
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|            |         | <p>the SA process may include:</p> <p><b>Issues:</b></p> <ul style="list-style-type: none"> <li>· Heritage assets at risk from neglect, decay, or development pressures;</li> <li>· Areas where, on current trends, there is likely to be further significant loss or erosion of landscape/ townscape character or quality;</li> <li>· Areas where development has had or is likely to have significant impact (direct and or indirect) upon the historic environment and/or people's enjoyment of it;</li> <li>· Traffic congestion, air quality, noise pollution and other problems affecting the historic environment;</li> <li>· Conserving and enhancing designated and non-designated heritage assets and the contribution made by their settings;</li> <li>· Conserving specific types of heritage assets, such as the rural heritage of a place;</li> <li>· Accommodating change and growth whilst sustaining and enhancing the significance of heritage assets and the valued character of a place.</li> </ul> <p><b>Opportunities:</b></p> <ul style="list-style-type: none"> <li>· Providing traditional building materials;</li> <li>· Promoting the innovative reuse of the existing building stock for social, cultural and or economic purposes;</li> <li>· Improving awareness, involvement, and understanding of, and access to, the historic environment;</li> <li>· Delivering heritage-led regeneration opportunities;</li> <li>· Promoting heritage based tourism;</li> <li>· Contributing to green infrastructure networks;</li> <li>· Encouraging traditional building and craft skills development; and</li> <li>· Using the historic environment as an educational resource.</li> </ul> | Section 6 and Table 3, Section 7 for example.       |  |

| Respondent       | Section | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | How/where consultation comments have been addressed            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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| English Heritage |         | <b>Sustainability Framework</b> - It is recommended that the application of the framework to the assessment of the historic environment is clear and iterative. Whatever method is used to review the framework and carry out the appraisal (i.e. use of a panel and/or consultants), there is a need to ensure the application of appropriate heritage expertise. While an objectives-based approach has generally been used, the Planning Advisory Service suggests that an alternative approach is to base the framework on a series of identified topics and/or sub-areas. English Heritage considers that this narrative based approach, focusing on an assessment against the baseline situation, would avoid pages of matrices resulting from an objectives-based approach. This alternative approach can include a historic environment topic paper; something we also recommend for the objectives approach, as a way of interpreting the information set out in matrices. | Noted, to be addressed in SA Report.                           | Noted, independent consultants have undertaken the SA and drawn on expertise of GCC archaeology team. An objective-led approach has been used however, as this is consistent with the method used for the Waste Core Strategy, which was found sound and adopted. A commentary/narrative has still been provided seeking to describe the potential effects of the MLP as a whole on each SA objective, including objective 12 relating to the historic environment (see Chapter 5). |
| English Heritage |         | <b>Objectives</b> - English Heritage considers that for the SA to meet the requirements of the SEA Directive it needs to include a specific objective: <b>"Conserve and enhance the historic environment, heritage assets and their settings"</b> . At present reference to merely archaeology and architecture is too selective – see above*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | This objective has been added to the SA Framework, Appendix 3. | Table 4.1, Chapter 4.                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| English Heritage |         | <b>Decision-making Criteria</b> - In developing your SA framework, you might benefit from using a more detailed decision-making criteria and related indicators to assess heritage. Such criteria can help to ensure that all the key heritage issues to be considered in the SA are incorporated in the SA framework and ensure that likely effects upon the historic environment are not masked. Examples of decision-making criteria are included in Appendix 2 to this letter.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Noted, to be addressed in SA Report.                           | Chapter 4 and Table 4.2. Chapter 5.                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| English Heritage |         | <b>Indicators and monitoring</b> - Indicators should clearly demonstrate the impact(s) of the plan on the historic environment. All proposed indicators for monitoring the significant effects of a plan should be set out in the Environmental / Sustainability Appraisal Report and finalised in the adopted plan. English Heritage's annual series of national and regional                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Noted. This will be borne in mind once the MLP is adopted and  | Chapter 6.                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

| Respondent | Section | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | How/where consultation comments have been addressed |  |
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|            |         | <p>reports, <i>Heritage Counts: State of the Historic Environment</i>, includes a suite of data sets for monitoring heritage assets and the historic environment. It is recommended that these be supplemented, wherever possible, by locally derived indicators. In devising historic environment indicators for the appraisal or monitoring of the significant effects of a development plan English Heritage recommends that:</p> <ul style="list-style-type: none"> <li>· the indicators clearly relate to the appraisal process, such as the accompanying objectives/sub-objectives (decision-making criteria), the baseline for the historic environment, and any identified effects and proposed mitigation measures;</li> <li>· the indicators are appropriate and relevant to the type and scale of the plan under consideration;</li> <li>· the indicators address positive and negative effects;</li> <li>· consideration is given to cumulative, secondary and synergistic effects; and</li> <li>· use is made of both qualitative and quantitative data.</li> </ul> <p>Selecting indicators which are directly linked to SA objectives is a complex process which is exacerbated in respect of the historic environment by the relative lack of consistently monitored data when compared to other topic areas. Notwithstanding this, a robust monitoring framework for the historic environment must be included to meet the requirements of SA in terms of:</p> <ul style="list-style-type: none"> <li>· Identifying any unforeseen adverse effects of implementing the plan and enabling appropriate remedial action to be taken;</li> <li>· Testing the accuracy of predictions made in the appraisal and improving future practice;</li> <li>· Determining whether the plan is contributing to the achievement of the desired objectives and targets for the historic environment;</li> <li>· Checking the delivery and performance of mitigation measures; and</li> <li>· Collecting information for future planning documents.</li> </ul> | the indicators are set.                             |  |

| Respondent      | Section | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | How/where consultation comments have been addressed |                                   |
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|                 |         | <p>Appendix 3 to this letter presents examples of indicators which can be tailored to local circumstances and the type and scale of the plan under consideration. The table shows the different ways in which indicators can be framed to:</p> <ul style="list-style-type: none"> <li>· describe the baseline or state of the historic environment;</li> <li>· monitor the type of impact or outcome; and track wider policy responses or actions taken to conserve and improve the historic environment, and mitigate any degradation (including avoiding or rectifying adverse impacts).</li> </ul>                                                                                                                                                                                                                                                                                                                                                    |                                                     |                                   |
| Natural England | Table 1 | <p>Additions to Table 1 List of Plans, Projects and Documents - <i>Biodiversity 2020: A strategy for England's wildlife and ecosystem services</i>, at a national level builds on the Environmental White Paper to halt overall biodiversity loss, support healthy well-functioning ecosystems and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people.</p> <p>It is underpinned by two international strategies:</p> <p><i>The Convention on Biological Diversity, COP Decision X/2, Strategic Plan for Biodiversity 2011-2020</i> - a Global Convention</p> <p><i>Our life insurance, our natural capital: an EU biodiversity strategy to 2020</i>, European Commission (2011)</p> <p><i>Biodiversity 2020: A strategy for England's wildlife and ecosystem services</i> has superseded <i>Working with the Grain of Nature: A Biodiversity Strategy For England</i> dated 2002.</p> | Table 1, Section 5. Appendix 1.                     | Table 3.1, Chapter 3. Appendix 3. |
| Natural England |         | <p>National Character Areas (NCA) have recently been updated by Natural England. These divide England into 159 distinct natural areas. Each is defined by a unique combination of landscape, biodiversity, geodiversity and cultural and economic activity. Their boundaries follow natural lines in the landscape rather than administrative boundaries, making them a good decision making framework for the natural environment. The environmental evidence bases (which will continue to be updated) and profiles themselves are being made more widely available. The NCA</p>                                                                                                                                                                                                                                                                                                                                                                       | Appendix 2.                                         | Appendix 4.                       |

| Respondent      | Section | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | How/where consultation comments have been addressed |                       |
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|                 |         | profiles are designed as guidance documents to help to achieve a more sustainable future for individuals and communities. The profiles include a description of the key ecosystem services provided in each character area and how these benefit people, wildlife and the economy. They identify potential opportunities for positive environmental change and provide the best available information and evidence as a context for local decision making and action. Gloucestershire County Council administrative area is covered by 5 NCA. 103 Malvern Hills, 105. Forest of Dean and Lower Wye, 106. Severn and Avon Vales, 107. Cotswolds, 118. Bristol, Avon Valleys and Ridges. The NCA are supported by a local, sub-national and national evidence base which should also be consulted to ensure that these where relevant have been included in the list of Plans and Projects. It would also be helpful if the Mineral Plan also tabled the emerging Local Plans and Core Strategies since these already set out the broad principles of location of new development. The need for a coordinated approach to all development and the inter-relationships between all local plans to take into account pressures on landscapes and designated sites is vital. |                                                     |                       |
| Natural England | Table 2 | <p>Potential Environmental Effects of Minerals development and Likely Future Environmental Status in the Absence of the MWDF. We advise the following alterations:</p> <p><i>Indirect and Direct Potential negative effects are:</i></p> <ul style="list-style-type: none"> <li>· Potential loss of <i>protected species and loss or deterioration of priority habitats</i></li> <li>· Habitat <i>deterioration</i>, loss and/or fragmentation from land take.</li> <li>· Changes in soil conditions and or quality <i>or loss of best and most versatile soils.</i></li> <li>· Pollution potential in terms of noise, vibration, light, dust, <i>air and water borne pollutants.</i></li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Table 2, Section 6.                                 | Table 3.2, Chapter 3. |
| Natural England | Table 2 | Comment on the likely future environmental status in the absence of the Plan. It should be noted that the absence of a Plan would not lead to unregulated development (enforcement procedures should prevent this) but unplanned development which is not likely to be the most sustainable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Table 2, Section 6.                                 | Table 3.2, Chapter 3. |

| Respondent      | Section | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | How/where consultation comments have been addressed |                                                           |
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|                 |         | option.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                     |                                                           |
| Natural England | Table 2 | <p>We advise the following alterations –</p> <ul style="list-style-type: none"> <li>· Plans contain policies which aim to protect <i>and enhance</i> the environment. Without these plans it is more likely that environmental designations would be damaged by unregulated <i>unplanned</i> development <i>and the opportunity to enhance the environment, and protect and improve environmental networks severely limited.</i></li> <li>· The value of nearby land, property or other material assets is not a material consideration for Planning and this should be excluded.</li> <li>· Impacts on Assets should also include conflicts with existing or planned infrastructure such green infrastructure assets. Potential landscape / visual effects as a result of quarrying may also include: distraction and blocking of views, by faces or accompanying development, change of scale, addition of feature (such as plant) and urbanisation of rural landscapes.</li> </ul> | Table 2, Section 6.                                 | Table 3.2, Chapter 3.                                     |
| Natural England | Table 3 | The SEA Directive Annex I directs that only existing environmental problems which are relevant to the plan or programme should be considered. Table 3. Sustainability Issues and Problems in Gloucestershire should therefore only consider issues are likely to have greater significance to the development of minerals policy in Gloucestershire and not general issues.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Table 3, Section 7.                                 | Table 3.3, Chapter 3.                                     |
| Natural England | Table 3 | Point 10 of table 3 Difficulties in terms of protecting Gloucestershire's environment whilst providing minerals – this is a key issue and more over a fundamental reason for undertaking Strategic Environmental Assessment through Sustainability Appraisal. Other important environmental assets have not been considered and this issue warrants more careful consideration and perhaps a table of its own.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Table 3, Section 7.                                 | Table 3.3, Chapter 3.                                     |
| Natural England | Table 3 | This is also true of point 9 <i>issues with restoration</i> including that within the Cotswold Water Park. As a strategic location for mineral extraction, the correlation between mineral extraction in the Cotswold Water Park                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Partially within Table 3, Section 7.                | Comment has been fully addressed in Table 3.3, Chapter 3. |



| Respondent      | Section | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | How/where consultation comments have been addressed |                                                                                                                                                                        |
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|                 |         | <p>and biodiversity require a more detailed appraisal in the table, particularly</p> <ul style="list-style-type: none"> <li>· Protection and enhancement of designated sites as well as consideration of whole environmental asset</li> <li>· the need for a more coherent approach to restoration and after-use,</li> <li>· matching mineral development to priorities for after-use</li> <li>· Ensuring that environmental priorities are considered for the lifetime of a quarrying operation.</li> <li>· Consideration of the need for an eco-systems services approach to balance the differing and sometimes conflicting needs of biodiversity and people.</li> </ul> |                                                     |                                                                                                                                                                        |
| Natural England | Table 3 | Point 12 The general state of Gloucestershire's biodiversity, the condition of SSSIs / sites protected under the Habitat's Directive / locally designated sites and Point 13 Decline in species biodiversity - in particular of certain bird species in Gloucestershire appear to be based on older data at least 13 years old. This is not sufficient and should be updated with the use of more recent evidence such that contained or derived from National Character Areas or more recent SSSI condition surveys, the County Bird report and records in the Local Biodiversity Record Centre.                                                                           | Table 3, Section 7.                                 | Table 3.3, Chapter 3.                                                                                                                                                  |
| Natural England | Table 3 | <p>In addition, particular issues that we also advise inclusion of are:</p> <ol style="list-style-type: none"> <li>1. Impacts on protected species in the Forest of Dean particularly bats associated with the Special Area of Conservation. Other proposed development in the area should also considered, in combination with mineral development.</li> <li>2. Over-abstraction of water from the River Severn</li> <li>3. The lack of an integrated county-wide strategic approach to all development leading to uncoordinated approach with subsequent pressures on protected landscapes and priority habitats and designated sites.</li> </ol>                         | Table 3, Section 4.                                 | <p>Table 3.3, Chapter 3.</p> <p>Point 3 is not agreed with, as the Minerals Local Plan is trying to achieve this and there is also an adopted Waste Core Strategy.</p> |

| Respondent      | Section | Comment                                                                                                                                                                                                                                                                                     | How/where consultation comments have been addressed |                                                                                                                                                                                                                      |
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| Natural England |         | We advise the following wording to be considered for the following objectives which should not just consider Gloucestershire but also consider the sustainability issues arising from mineral development there outside of the County particularly considering cross –border issues.        | Appendix 2.                                         | The proposed wording has been addressed as detailed in the rows below.                                                                                                                                               |
|                 |         | <i>Access</i> - To protect and enhance networks of pedestrian and cycle routes, to ensure connections between people and places and the integration of new development into the natural, built and historic environment.                                                                    |                                                     | The protection of recreational assets is already covered by SA Objective 10. The protection of pedestrian and cycle routes are included in the SA Assumptions for SA Objective 10. See Table 4.1 and 4.2, Chapter 4. |
|                 |         | <i>Air Quality</i> - To help to meet local, national and international objectives for air quality.                                                                                                                                                                                          |                                                     | This has been added to SA Objective 15. See Table 4.1 and 4.2, Chapter 4.                                                                                                                                            |
|                 |         | <i>Biodiversity</i> - To conserve and enhance biodiversity by establishing coherent, resilient ecological networks, protecting irreplaceable habitats (including Ancient Woodlands), minimising the impacts of development and providing net gains in habitats/biodiversity where possible. |                                                     | These proposed amendments have been incorporated into the sub-objectives for SA Objectives 7 and 9. See Table 4.1 and 4.2, Chapter 4.                                                                                |
|                 |         | <i>Countryside</i> - To protect intrinsic character and beauty of the countryside                                                                                                                                                                                                           |                                                     | SA Objective 8 includes wording with a similar meaning: "To protect, conserve and enhance the landscape in Gloucestershire." SA objective 8 has therefore not been amended. See Table 4.1 and 4.2, Chapter 4.        |
|                 |         | <i>Energy</i> - To contribute to renewable or low carbon energy generation, while ensuring that adverse impacts are addressed.                                                                                                                                                              |                                                     | Nothing specific is included on energy in the SA framework. However, SA Objective 18                                                                                                                                 |

| Respondent | Section | Comment                                                                                                                                                                                                                                                                                                                                | How/where consultation comments have been addressed |                                                                                                                                                                                                                                                                                                           |
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|            |         |                                                                                                                                                                                                                                                                                                                                        |                                                     | addresses climate change; furthermore mineral sites do not hold much potential to contribute to renewables or low carbon energy production. See Table 4.1 and 4.2, Chapter 4.                                                                                                                             |
|            |         | <i>Geology</i> - To prevent harm to geological sites and features of conservation interests.                                                                                                                                                                                                                                           |                                                     | The wording of SA Objective 11 has a similar meaning to this suggestion. SA Objective 11 has therefore not been amended. See Table 4.1 and 4.2, Chapter 4.                                                                                                                                                |
|            |         | <i>Green Infrastructure</i> - To define Green Infrastructure - a network of multi-functional green space, both urban and rural, which supports economic growth and regeneration, delivers a wide range of quality of life benefits, supports natural systems and biodiversity and help reduces the negative impacts of climate change. |                                                     | Reference to Green Infrastructure and its definition have been included in SA Objective 9 and its justification. See Table 4.1 and 4.2, Chapter 4.                                                                                                                                                        |
|            |         | <i>Land / Soils</i> - To use areas of poorer quality land in preference to the best and most versatile agricultural land, where development in the countryside is demonstrated to be necessary (and previously developed land?)                                                                                                        |                                                     | This proposed amendment is already addressed in SA Objective 14 and the assumptions to be used in the SA. See Table 4.1 and 4.2, Chapter 4.                                                                                                                                                               |
|            |         | <i>Protected Landscapes</i> - To conserve landscape and scenic beauty Areas of Outstanding Natural Beauty and their wildlife and cultural heritage encouraging more people to access these areas by public transport, cycling or walking                                                                                               |                                                     | SA Objective 8 addresses protected landscapes, including AONBs. Additionally, SA Objective 10 seeks to protect and conserve recreational assets; however it is not within the remit of a Mineral Local Plan to encourage the use of sustainable public transport modes. See Table 4.1 and 4.2, Chapter 4. |

| Respondent      | Section    | Comment                                                                                                                                                                                                                                                                                                                      | How/where consultation comments have been addressed |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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|                 |            | <i>Landscape</i> - To protect and enhance valued landscapes, sites of geological interests and soils;                                                                                                                                                                                                                        |                                                     | This proposed amendment it already addressed in SA Objectives 8, 11 and 14. See Table 4.1 and 4.2, Chapter 4.                                                                                                                                                                                                                                                                                                                                                                                                  |
|                 |            | <i>Minerals</i> - To maintain land-banks of non-energy minerals from outside Areas of Outstanding Natural Beauty and ensure mineral development, does not adversely impact the natural and historic environment, human health or aviation                                                                                    |                                                     | The proposed amendment “to maintain land-banks of non-energy minerals from outside Areas of Outstanding Natural Beauty” is already a requirement of Minerals Local Plans in accordance with paragraph 144 of the National Planning Policy Framework. Furthermore: impacts on the natural and historic environment are addressed in SA Objectives 7 and 12; impacts on human health are addressed in SA Objective 1; and impacts on aviation are addressed in SA Objective 5. See Table 4.1 and 4.2, Chapter 4. |
|                 |            | <i>Water</i> - To mitigate and adapt to climate change, taking full account of flood risk, coastal change and water supply and demand considerations                                                                                                                                                                         |                                                     | This proposed amendment is already addressed in SA Objective 13 and 16. Coastal Change is not addressed but this does not apply to Gloucestershire. See Table 4.1 and 4.2, Chapter 4.                                                                                                                                                                                                                                                                                                                          |
| Natural England | Appendix 3 | The Appendix 3 questions could be more ambitious to reflect the need to enhance and opportunities to improve rather than only consider the protection of assets. For example, an additional environmental APPENDIX 3 Subsidiary Question would be how can restored mineral workings contribute to Biodiversity 2020 targets? | Appendix 3                                          | Table 4.1, Chapter 4.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

| Respondent         | Section | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | How/where consultation comments have been addressed                                                                                                                                        |                                   |
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| Wessex Water       |         | I refer to your letter of 27 <sup>th</sup> March and advise we have no suggestions to alter the proposed Scoping Report.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | N/A                                                                                                                                                                                        | N/A                               |
| Wessex Water       |         | Please note, however, that reference is made to Wessex Water's Draft Water Resources Plan; this was Wessex Water's last Water Resources Management Plan which was published as a final version (not draft) in June 2010. Wessex Water has recently prepared a revised draft WRMP which is due to be published for public consultation next Tuesday, 7th May. <a href="http://www.wessexwater.co.uk/water-and-sewerage/threecol.aspx?id=578&amp;linkidentifier=id&amp;itemid=578">http://www.wessexwater.co.uk/water-and-sewerage/threecol.aspx?id=578&amp;linkidentifier=id&amp;itemid=578</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Table 1, Section 5. Appendix 1.                                                                                                                                                            | Table 3.1, Chapter 3. Appendix 3. |
| Environment Agency | Table 1 | <p><b>Relevant plans, policies and documents.</b> We note the inclusion of Wessex, Thames and Severn Trent Water Management plans. Gloucestershire also includes the operational areas of Welsh Water and a small part of Bristol Water. These Water Management Plans may also therefore be relevant.</p> <p>We note the inclusion of the Gloucestershire Strategic Flood Risk Assessment (SFRA). We agree this is the appropriate SFRA to include in the SA. Since this SFRA was completed the various district Councils have undertaken additional Level 2 SFRAs in support of their emerging Local Plans. These SFRAs supplement the original SFRA, and therefore may provide useful flood risk information that focuses more closely on certain geographic areas. This information will be useful for the Minerals Core Strategy and any allocations included within it. As such you might consider including the various district SFRAs in the SA as well. We note the various district Local Plans / LDFs are referred to but the Cheltenham, Tewkesbury &amp; Gloucester Joint Core Strategy is not specifically referred to. This list may therefore need updating.</p> <p>The table does not currently include the following relevant environmental plans and strategies:</p> <p>River Basin Management Plans (RBMPs). These plans show the ecological status of water bodies. They identify the pressures facing the water environment, and the actions required under WFD to address issues. The RBMPs are available at: <a href="http://www.environment-">http://www.environment-</a></p> | Table 1, Section 5. Appendix 1. The Welsh Water and Bristol Water Management Plans are to be addressed in SA Report. The CFMPs nor the SMPs are included as they are covered by the SFRAs. | Table 3.1, Chapter 3. Appendix 3. |

| Respondent         | Section | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | How/where consultation comments have been addressed |                       |
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|                    |         | <p>agency.gov.uk/research/planning/33106.aspx The Thames RBMP covers the Cotswolds District, and the Severn RBMP covers the other Gloucestershire Districts.</p> <p>Catchment Abstraction Management Strategies (CAMS). These documents are licensing strategies that set out how the EA will manage water resources, existing and future abstraction licences and water availability within river catchments. The CAMS area available at: <a href="http://www.environment-agency.gov.uk/business/topics/water/119927.aspx">http://www.environment-agency.gov.uk/business/topics/water/119927.aspx</a> There are 6 different CAMS that cover the river catchments in Gloucestershire listed under the different EA regions as follows: Midlands – Severn Corridor; Severn Vale, EA Wales – Wye, South West – Bristol Avon and North Somerset Streams, South East – Cotswold; Thames Corridor.</p> <p>In addition there are Catchment Flood Management Plans (CFMPs) and Shoreline Management Plans (SMPs). However the various SFRAs of the Districts, along with the original SFRA for the Minerals and Waste Development Frameworks included the relevant references to these plans. As such it may not be relevant to include the CFMPs or SMPs specifically as they are 'covered' by the SFRAs.</p> |                                                     |                       |
| Environment Agency | Table 3 | <p><b>Sustainability issues and problems in Gloucestershire</b> - We concur with the list of sustainability issues for Gloucestershire where relevant to our remit. Items 12 and 13 that relate to biodiversity may make useful reference to climate change as this is considered to be a relevant factor in biodiversity decline. We consider the table should also include the sustainability issue of water quality. The Water Framework Directive (WFD) aims to protect and enhance water bodies. Water bodies include watercourses, canals and groundwater bodies. There are various deadlines for meeting 'good' ecological status, the majority being by 2027 (although some deadlines are sooner – 2015 and 2022). Various aspects can affect the achievement of good ecological status, such as diffuse and point source pollution, low flows, biodiversity, barriers to fish passage and geomorphology. Development, including minerals development, can impact water bodies. Under the WFD, there must be no deterioration in the ecological status of water bodies. Therefore</p>                                                                                                                                                                                                           | Table 3, Section 7.                                 | Table 3.3, Chapter 3. |

| Respondent         | Section    | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | How/where consultation comments have been addressed |                                                 |
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|                    |            | development must not result in such deterioration, and wherever possible it should seek opportunities to enhance water quality. In Gloucestershire the majority of the water bodies are not currently meeting 'good' status and are only at 'moderate' status or below. Accordingly water quality is a significant issue. The River Basin Management Plans show the current status including reasons for failure. Therefore there is good information available on this matter and a way of setting targets, indicators and monitoring progress. Accordingly we consider this aspect to be a relevant sustainability issue for the SA.                                                                                                                                        |                                                     |                                                 |
| Environment Agency | Table 4    | <b>Sustainability appraisal objectives.</b> We concur with the sustainability objectives in table 4. We recommend number 13 on flood risk is amended to include an enhancement element. For example it could read: <i>"To prevent flooding, in particular preventing inappropriate development in the floodplain, <u>and reducing flood risk where possible</u>, and to ensure that minerals development does not compromise sustainable sources of water supply."</i> Furthermore, we consider the inclusion of water supply / resources in the above objective may be confusing. It may be better to include water resources/supply in number 16 along with water quality. For example <i>"To protect and enhance water quality <u>and quantity</u> in Gloucestershire"</i> |                                                     | Table 4.1 and Table 4.2, Chapter 4. Appendix 2. |
| Environment Agency | Appendix 1 | <b>Relevant plans, programmes, strategies and initiatives.</b> Notwithstanding the above comments for Table 1, we note and welcome the inclusion of the WFD here and concur with the columns and references to the RBMPs. With regards to the SFRA, we note the PPS25 Sequential Test is referred to. PPS25 has now been removed and the NPPF is the relevant policy. The NPPF and its Technical Guidance includes many of the previous PPS25 requirements including the need for Sequential Testing.                                                                                                                                                                                                                                                                         | Table 1, Section 5. Appendix 1.                     | Table 3.1, Chapter 3. Appendix 3.               |
| Environment Agency | Appendix 2 | <b>Baseline information.</b> As per our comments on Table 3 above, water quality is an issue for Gloucestershire as the majority of water bodies in the County are not yet meeting 'good' ecological status in accordance with the WFD. The information in the Water section will need updating in line with the latest RBMP information. Whilst the individual break down of                                                                                                                                                                                                                                                                                                                                                                                                 | Table 3, Section 7.                                 | Table 3.3, Chapter 3.                           |

| Respondent         | Section    | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                              | How/where consultation comments have been addressed |                       |
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|                    |            | biological and chemical water quality is still relevant, the overall picture in terms of the WFD goals and current ecological status is relevant to the SA and should also be referenced.                                                                                                                                                                                                                                                            |                                                     |                       |
| Environment Agency | Appendix 3 | <b>Subsidiary questions.</b> The questions under section 13 on flood risk could be altered as follows: <i>Can the risk of flooding be <u>managed and reduced</u> through site design?, Will surface water runoff be <u>sustainably managed</u>?</i> We recommend the following addition to first question in section 16: <i>What is the proximity of vulnerable surface or groundwater <u>and what are the likely impacts on these features</u>?</i> | Appendix 3.                                         | Table 4.1, Chapter 4. |



## **Appendix 2**

Audit trail of reasonable alternatives considered during preparation of the Gloucestershire Minerals Local Plan

| Minerals Core Strategy Issues & Options (2005-2007)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Minerals Core Strategy Preferred Options (2008)                                                                                                                                                                                                                                                                                                                     | Minerals Local Plan Site Options and Draft Policy Framework Consultation Document (June 2014)                                                                                                                                                                                                                                                                                                                               |
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| <b>Time period for MCS/MLP</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <p><b>ISSUE M1. Setting an Appropriate Timeframe for the MCS</b></p> <p><b>(Option 1):</b> 10 years from the date of adoption.</p> <p>As detailed in the Minerals Core Strategy Issues &amp; Options Paper SA Report (September 2006) this option was not favoured, although there were a number of positive scores in the short to medium term. <b>This option was dropped</b> due to the SA test at Issues &amp; Options and the fact that this timeframe would forecast the MCS ending at the end of 2019. Although this option met the minimum timescale advised by PP12, it failed to reflect the time horizon of the RSS (which is to 2026) also as advised by PPS12. Furthermore, there were timeframe issues associated with published national and regional aggregate guidelines that were referred to and expanded upon in MPS1. Of particular interest was the advice to maintain reserves equal to a 10-year landbank for crushed rock and a 7-year landbank for sand &amp; gravel. Based on the national and regional aggregate guidelines, which run through to 2016, this approach sets a policy timeframe of 2026 for crushed rock and 2023 for sand &amp; gravel.</p> <p><b>(Option 2):</b> To at least the end of the guideline period for aggregate provision (i.e. 2016).</p> <p>At Issues and Options stage the SA revealed uncertainties in the longer term. <b>This option</b></p> | <p>In the 2008 Preferred Options Consultation paper the Vision refers to 2026, and the introduction to the Spatial Strategy (para. 92) stated that 2026 as the date up to which the county's mineral resources should be safeguarded or considered for future working.</p> <p>No further options for the time period for the MCS were considered at this stage.</p> | <p>In the 2014 Consultation Document, the end date for the MLP has changed to 2030, which reflects the NPPF requirement for local plans to cover an appropriate time scale, preferably a 15-year time horizon (para. 157 of the NPPF). Taking 2015 as the start date for the MLP, 2030 becomes the end date for the plan.</p> <p>No further options for the time period for the MLP have been considered at this stage.</p> |

| Minerals Core Strategy Issues & Options (2005-2007)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Minerals Core Strategy Preferred Options (2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Minerals Local Plan Site Options and Draft Policy Framework Consultation Document (June 2014)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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| <p><b>was dropped</b>, see second part of the comments given for Option M1 above concerning MPS1 and the landbank requirements. This option did not specify how long after 2016 would potentially be acceptable.</p> <p><b>(Option 3):</b> To 2026, fitting in with Regional Spatial Strategy timescales.</p> <p>This option was generally favoured due to the fact that there are potentially positive long term effects in terms of the provision of aggregates. <b>This option became the preferred option.</b></p>                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <p><b>Vision and strategic objectives</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <p><b>ISSUE M2. Setting an Appropriate Spatial Vision and Strategic Objectives for the MCS</b></p> <p><b>(Option 1):</b> <u>Business as usual</u> – The vision in Minerals Local Plan.</p> <p><b>(Option 2):</b> The proposed vision in the MCS.</p> <p>At Issues and Options stage the SA indicated that the 'business as usual' current vision in the MLP was very comprehensive and broadly positive in terms of the tests against the SA objectives. However <b>Option 1 was not favoured over Option 2 and it was dropped</b>; a primary reason being that given (for Issue M1 Option 1) above concerning MPS1 and the specific landbank requirements.</p> | <p><b>The Preferred Options included the following Spatial Vision (MPO1):</b></p> <p>"By 2026 Gloucestershire will be a clean, green, healthy and safe place in which to live, work and visit. It will be a leading county in managing its mineral resources and a successful contributor towards the achievements of sustainable development, sustainable communities, and reducing the impacts of climate change.</p> <p>Local mineral resources will be integral to delivering renewal, regeneration and urban growth for Gloucester, Cheltenham and elsewhere in the county. Specialist minerals will also have an important role in revitalising and restoring Gloucestershire's historic and quality</p> | <p>A further revised vision has been included in the 2014 MLP Consultation Document. Amendments have been made to the 2008 vision, both in the light of the consultation responses made then and also to ensure that the vision is up-to-date and NPPF compliant, including the addition of a specific reference to minimising the risk of birdstrike, changing the date to 2030 and the removal of references to regional planning. However, due to comments about the vision being too lengthy, the revised version is shorter and more succinct (also in accordance with the NPPF).</p> <p><b>The Proposed Spatial Vision states:</b></p> <p>By 2030 Gloucestershire will be a clean, green, healthy and safe place in which to live, work</p> |

| Minerals Core Strategy Issues & Options (2005-2007)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Minerals Core Strategy Preferred Options (2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Minerals Local Plan Site Options and Draft Policy Framework Consultation Document (June 2014)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| <p><b>Option 2 was favoured</b> at the Issues and Options stage but following consultation stakeholders and consultees such as GOSW indicated that a more 'spatial' and expanded vision would be desirable. (See also the comments given above (for Issue M1 Option 1) concerning MPS1 and the specific landbank requirements.</p> <p>Furthermore, the revised spatial vision developed for the Preferred Options stage of the MCS needed to take into account the conclusion of the SA process. In this instance, there was a mandate for the revised vision to be clearly set out with a positive steer towards the future of Gloucestershire.</p> <p><b>The strategic objectives</b> were as follows:</p> <ol style="list-style-type: none"> <li>1. To identify, conserve and safeguard Gloucestershire's finite mineral resources from unnecessary sterilisation by other forms of development.</li> <li>2. To ensure that the appropriate provision is made to meet the local, regional and national demand for minerals from sustainable sources in Gloucestershire.</li> <li>3. To protect where possible, the natural, historic and cultural assets of Gloucestershire.</li> <li>4. To ensure minerals sites are restored to the highest possible standard that is capable of providing for a range of sustainable after-uses, and that this is done as quickly as possible.</li> <li>5. To secure enforceable, sound working practices that minimise the adverse impacts of</li> </ol> | <p>built environments.</p> <p>However, mineral supplies from Gloucestershire will no longer be focused on primary extraction. Instead, greater emphasis will be placed upon maximising the reuse of materials and recycling of construction &amp; demolition wastes. Support will also be given to the importation, by more sustainable forms of transport, of secondary and alternative aggregates from within and outside the region. The county will also be known as an active supporter of regional supply targets for aggregates derived from alternative sources.</p> <p>Nevertheless, primary minerals will remain an essential part of the county's mineral supply, not only in terms of meeting local need but also in contributing to regional guidelines. Mineral working will include; limestone used as a crushed rock and sand &amp; gravel for aggregate purposes; limestone and sandstone for natural building &amp; roofing stone; clay for civil engineering and brick making; and coal for energy generation. The key resource areas will be – the Forest of Dean; Cotswolds; Upper Thames Valley; and the Severn Vale Corridor.</p> <p>The provision and supply of primary minerals will be made following the consideration of the consequences of local environmental capacity and the availability of viable and less constrained, but no less sustainable, resources from outside of Gloucestershire. Furthermore, where mineral working takes place, amenity, health, quality of life and economic vitality will be paramount to the decision making process.</p> | <p>and visit. It will be a leading county in managing its mineral resources and a successful contributor towards the achievements of sustainable development, sustainable communities, and reducing the impacts of climate change.</p> <p>Local mineral resources will be integral to delivering renewal, regeneration and growth in the county. Specialist minerals will also have an important role in revitalising and restoring Gloucestershire's historic and quality built environments, taking account of the different roles and character of different areas.</p> <p>Greater emphasis will be placed upon maximising the reuse of materials and recycling of construction &amp; demolition wastes as well as reducing in-site waste and promoting the optimum and most appropriate use of minerals. However, primary minerals will remain an essential part of the county's mineral supply, particularly in terms of meeting local need. Provision for minerals will be made taking account of Gloucestershire's environmental capacity.</p> <p>Although road haulage is likely to remain the dominant form of transport, smarter supply chains will be sought. These include stricter haulage routes and more efficient practices. Through this approach vehicle movements for minerals will be reduced on local roads leading to a reduction in vehicle emissions. This will also help curb local traffic growth, wear and tear on the road network, and reduce other</p> |

| Minerals Core Strategy Issues & Options (2005-2007)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Minerals Core Strategy Preferred Options (2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Minerals Local Plan Site Options and Draft Policy Framework Consultation Document (June 2014)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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| <p>mineral developments on the local communities, the local economy and the environment.</p> <p>6. To encourage the efficient working of mineral resources.</p> <p>7. To promote the maximum use of recycled materials in preference to non-renewable primary minerals, where possible.</p> <p>8. To encourage more sustainable ways of transporting minerals, especially alternatives to haulage by road.</p> <p>9. To promote closer working with neighbouring authorities to develop a consistent policy approach for the future planning of strategic mineral resources.</p> <p>The <b>strategic objectives</b> were tested against the 15 SA objectives. These received a combination of major positive, positive and neutral scores. As a consequence the revised strategic objectives for the Preferred Options stage of the MCS had to integrate all of the actions for which major positive and positive scores were awarded.</p> | <p>Particular attention will also be drawn to efficient and prudent working practices that support a reduction in site waste and the optimum and most appropriate use of minerals.</p> <p>Although road haulage is likely to remain the dominant form of transport, smarter supply chains will be in place. These include stricter haulage routes and more efficient practices, such as back hauling of materials to and from sites. Through this approach vehicle movements for minerals will be reduced on local roads leading to a reduction in vehicle emissions. This will also help curb local traffic growth, wear and tear on the road network, and reduce other adverse impacts such as noise, dust and road safety.</p> <p>Mineral working in Gloucestershire will act as a positive driver for protecting and enhancing the quality of environmental assets and designations such as the Cotswolds and Wye Valley AONBs. Through the process of mineral restoration, worked out mineral sites will be seen as a key resource for increasing biodiversity and geodiversity interest. They will also assist in expanding the knowledge of our archaeological past.</p> <p>Finally, mineral restoration will be lauded as having positively steered the successful and co-ordinated regeneration of the Cotswold Water Park in Gloucestershire and the adjoining areas of Swindon and Wiltshire. It will also be recognised, as a key driver of change that will underpin future regeneration opportunities in</p> | <p>adverse impacts such as noise, dust and road safety.</p> <p>Where mineral working takes place, amenity, health, quality of life and economic vitality will be paramount to the decision making process. Mineral working will act as a positive driver for protecting and enhancing the quality of environmental assets and designations such as the Cotswolds and Wye Valley AONBs and will also assist in expanding the knowledge of our archaeological past. Through the process of mineral restoration, worked out mineral sites will be seen as a key resource for increasing biodiversity and geodiversity whilst at the same time minimising risk of birdstrike. In particular the successful co-ordination of mineral management in the Upper Thames Valley (including the adjacent areas of Wiltshire and Swindon) will be crucial to successful regeneration and restoration of the landscape in this area.</p> <p><b>SA Findings</b></p> <p>The SA findings for the Vision are presented in Appendix 5 and Chapter 5 of this SA Report.</p> <p><b>Proposed Strategic 'Priorities'</b></p> <p>In order to be compliant with the NPPF, the strategic objectives are now referred to as strategic priorities. The objectives that were presented in the 2008 consultation have been further revised to take account of national policy changes and also the comments received in response to that consultation.</p> |

| Minerals Core Strategy Issues & Options (2005-2007) | Minerals Core Strategy Preferred Options (2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Minerals Local Plan Site Options and Draft Policy Framework Consultation Document (June 2014)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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|                                                     | <p>the area.”</p> <p><b>SA Findings for MPO1</b> (as presented in the 2008 Preferred Options SA Non-technical Summary)</p> <p>The proposed vision is very comprehensive, thus it scores very well against the 15 SA Objectives, particularly in the medium to long term. There are no clear negative effects likely at this level of assessment and taking the vision as a whole. The vision contains a good balance between providing for the mineral need of society as a whole and for Gloucestershire, and ensuring that the issue of environmental capacity is considered. An important aspect of it is the focus on maximising the reuse of materials and the recycling of C&amp;D wastes. This clearly accords with Government policy in MPS1 and represents a clear sustainable way ahead for the minerals industry</p> <p><b>The strategic objectives included in the Preferred Options (MPO2) were:</b></p> <p><b>Provision &amp; Supply</b> - To ensure that appropriate provision is made for the supply of minerals to meet national, regional and local requirements including the Gloucestershire apportionments of crushed rock and land-won sand &amp; gravel. Full account must be given to – local environmental capacity; availability of workable and viable resources; and market conditions.</p> <p><b>Reuse &amp; Recycling</b> - To promote the maximum reuse and recycling of materials in preference to primary minerals, particularly</p> | <p>Changes reflective of comments include: a slight reordering of objectives; inclusion of a reference to sustainable transport in relation to reuse and recycling; rewording of the Environment strategic objective to be appropriate to all landscapes and to include a reference to the historic environment; the reclamation objective has been expanded to include references to specific criteria outlined in paragraph 143 of the NPPF, to make reference to enhanced environmental standards and to include a reference to minimising risk of birdstrike hazard; removal of reference to “worked-out” minerals sites; the transport objective has been expanded to take account of the transport impacts of restoration proposals, to make reference to avoiding the use of roads unsuitable for HGVs and highlight the potential need to mitigation to the strategic road network; Resource management – deletion of the word practicable; People – word minimise has been replaced with ‘mitigate against’.</p> <p><b>Strategic Priority 1: Reuse &amp; Recycling</b> To promote the maximum reuse and recycling of materials in preference to the use of primary minerals (where specification will allow), particularly where transportation is sustainable or kept to a minimum and the handling and processing of recyclates will not have an adverse impact on the environment or prejudice site restoration.</p> <p><b>Strategic Priority 2: Provision &amp; Supply</b> To ensure that appropriate provision is made for the supply of minerals to meet national, and</p> |

| Minerals Core Strategy Issues & Options (2005-2007) | Minerals Core Strategy Preferred Options (2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Minerals Local Plan Site Options and Draft Policy Framework Consultation Document (June 2014)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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|                                                     | <p>where transportation is kept to a minimum and the handling and processing of recyclates will not have an adverse impact on the environment or prejudice site restoration.</p> <p><b>The Environment</b> - To seek the protection, and where appropriate, the enhancement of land that could be affected by mineral working, which has been internationally, nationally, regionally and locally designated on environmental and landscape grounds.</p> <p><b>People</b> - To secure sound and enforceable working practices, which will minimise adverse impacts on local communities and businesses and will be systematically monitored.</p> <p><b>Reclamation</b> - To secure the highest possible standards and quality of mineral restoration and aftercare for worked-out mineral sites, taking a spatial view of after use opportunities for – biodiversity, geodiversity, agriculture, public access, regeneration, contributing towards reducing climate change impacts, and ensuring aerodrome safeguarding.</p> <p><b>Resource Management</b> - To manage the county's remaining mineral resources in a coordinated and efficient manner so as to ensure that future development will not result in mineral sterilisation; that where minerals are worked, they are put to their most practicable and optimal use; and that the amount of waste produced is minimised.</p> <p><b>Transport</b> - To reduce the impacts of hauling minerals by road and encourage more sustainable forms of transport, including</p> | <p>local requirements including the aggregates provision identified within the local aggregates assessment. Full account must be given to – local environmental capacity; availability of workable and viable resources; and market conditions.</p> <p><b>Strategic Priority 3: The Environment</b> To protect, and where appropriate, enhance, the quality of landscapes, habitats, heritage and other environmental assets, having full regard to their international, national or local importance.</p> <p><b>Strategic Priority 4: People</b> To secure sound and enforceable working practices, which will mitigate against adverse impacts on local communities and businesses and will be systematically monitored.</p> <p><b>Strategic Priority 5: Reclamation</b> To secure both enhanced environmental standards and the highest possible standards and quality of mineral restoration and aftercare for mineral sites at the earliest opportunity, taking a spatial view of after use opportunities for – biodiversity, geodiversity, agriculture (including safeguarding of best and most versatile agricultural land and safeguarding soil resources), native woodland, public access, regeneration, the historic environment, recreation, contributing towards reducing climate change impacts (including the impact of traffic) and ensuring aerodrome safeguarding, with particular regard to preventing an increase in birdstrike hazard to air traffic.</p> |

| Minerals Core Strategy Issues & Options (2005-2007)                                                                                                                                                                                                     | Minerals Core Strategy Preferred Options (2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Minerals Local Plan Site Options and Draft Policy Framework Consultation Document (June 2014)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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|                                                                                                                                                                                                                                                         | <p>necessary improvements to infrastructure.</p> <p><b>SA Findings for MPO2</b> (as presented in the 2008 Preferred Options SA Non-technical Summary)</p> <p>The 7 strategic objectives are detailed, comprehensive and focused on the significant issues that need to be addressed. Thus the majority of scores are positive to major positive against the 15 SA Objectives, particularly in the medium to long term. There are no clear negative effects likely at this level of assessment; neutral scores are given in the short term for SA Objectives 9 and 10. The strategic objectives are broadly in line with Government policy in MPS1, are clearly linked to the vision – pointing to sustainable ways ahead for the minerals industry – such as a focus on reuse and recycling rather than just primary extraction. Section 14 of the MCS Preferred Options paper clearly indicates how the objectives will be implemented and the levels of support and partnership working that will be required.</p> | <p><b>Strategic Priority 6: Resource Management</b><br/>To manage the county's remaining mineral resources in a co-ordinated and efficient manner so as to ensure that future development will not result in mineral sterilisation; that where minerals are worked, they are put to their most optimal use; and that the amount of waste produced is minimised.</p> <p><b>Strategic Priority 7: Transport</b> To reduce the impacts of hauling minerals by road and encourage more sustainable forms of transport, including necessary improvements to infrastructure. Where transportation by road is the only practicable option, roads unsuitable for HGVs will be avoided. Improvements to the existing strategic road network may be required to facilitate the transportation of minerals by HGV.</p> <p><b>SA Findings</b><br/>The SA findings for the strategic objectives are presented in Appendix 5 and Chapter 5 of this SA Report.</p> |
| <b>Conserving mineral resources (safeguarding)</b>                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <p><b>ISSUE M3. Meeting Objective 1: Identifying, conserving and safeguarding Gloucestershire's finite mineral resources from unnecessary sterilisation by other forms of development.</b></p> <p><b>(Option 1): Business as usual</b> Roll forward</p> | <p><b>The Preferred Option relating to safeguarding was:</b></p> <p><b>MPO13 (Resource Management)</b></p> <p>Preferred Option MPO13 supports the delineation of Mineral Safeguarding Areas (MSAs) for the county's mineral resources of</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <p>The responses to the Preferred Options consultation in 2008 indicated that option MPO13 was the preferred approach to take forward. However, this was a framework for a policy approach which now needs to be developed into policy options.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |



| Minerals Core Strategy Issues & Options (2005-2007)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Minerals Core Strategy Preferred Options (2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Minerals Local Plan Site Options and Draft Policy Framework Consultation Document (June 2014)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| <p>the existing general safeguarding policy in the Minerals Local Plan.</p> <p>As detailed in the Minerals Core Strategy Issues &amp; Options Paper SA Report (September 2006) this option was considered to be broadly positive in terms of the tests against the SA Objectives. However <b>it was dropped</b>, as it did not fully accord with national policy in MPS1. It did not include Mineral Safeguarding Areas (MSAs), although it did have a Minerals Consultation Area (MCA) covering the Upper Thames Valley area.</p> <p><b>(Option 2): Devise new policies</b> that set out specific safeguarding criteria for particular mineral types such as natural building &amp; roofing stone and brick-clays.</p> <p>This option scored well in the Issues &amp; Options SA and was <b>effectively carried forward into the Preferred Options</b>.</p> <p><b>(Option 3): Business as usual</b> Retain the existing Mineral Conservation Area policy for the sand and gravel resource in the Upper Thames Valley.</p> <p><b>This option was effectively carried forward into the Preferred Options.</b></p> <p><b>(Option 4): Retain the existing Mineral Conservation Area</b> and highlight the potential for a review of Mineral Conservation Area coverage across the County.</p> <p><b>This option was effectively carried forward into the Preferred Options.</b></p> | <p>limestone used as a crushed rock; sand &amp; gravel; building stone and coal, which are considered to be of current and future economic or building conservation importance. It proposes the assessment of mineral resources to form part of a strategic policy for the MCS. In terms of delineating MSAs, this will take place in the future as part of the MWDF Proposals Map to accompany the Development Control Policies (DPD).</p> <p>Gloucestershire is a two-tier planning area, which already has a Mineral Consultation Area (MCA) in the Upper Thames Valley. Consequently, preferred option MPO13 proposes a review of the existing MCA along with the consideration of new MCAs for other parts of the county. The review will take place alongside the delineation of MSAs, and all future MCAs will form part of the MWDF Proposals Map.</p> <p>Preferred option MPO13 also supports the principle of prior-extraction of minerals, where new development is proposed. It will seek to deliver this in the future through suitable development control policies, which highlight specific prior-extraction criteria for certain locations, developments or mineral resources.</p> <p>The final part of option MPO13 is concerned with efficient mineral working – maximising value, usefulness and reducing waste. These matters will be covered by an overarching policy that will seek the highest value and usefulness of minerals and working practices that will minimise the amount of mineral waste</p> | <p>There are three proposed policies relating to minerals safeguarding in the 2014 MLP Consultation Document:</p> <p><b>Proposed Policy for Minerals Safeguarding Areas (MSAs)</b></p> <p><b>Proposed Standing Advice for implementation of the MSA Policy</b></p> <p><b>Proposed Safeguarding Policy for Minerals Infrastructure</b></p> <p>In addition, between four and five individual options for delineating the MSAs for the following mineral resources have also been identified in the MLP Consultation Document:</p> <ul style="list-style-type: none"> <li>• Carboniferous and Jurassic limestones.</li> <li>• Devonian and Carboniferous sandstones.</li> <li>• Unconsolidated and consolidated sand and gravel.</li> <li>• Carboniferous and Jurassic clays.</li> <li>• Coal.</li> </ul> <p>The options for delineating the MSAs generally propose safeguarding the entire known resource, safeguarding parts of the resource area based on historical workings/age of geological formation/location of resource (e.g. Forest of Dean or Cotswolds etc.), safeguarding buffer zones of either 250m, 500m or 1km around existing and former quarries and other 'strategic resource areas'. These options are not intended necessarily to be alternatives to each other; instead, it is possible that the</p> |

| Minerals Core Strategy Issues & Options (2005-2007)                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Minerals Core Strategy Preferred Options (2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Minerals Local Plan Site Options and Draft Policy Framework Consultation Document (June 2014)                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| <p><b>(Option 5):</b> Recommend the removal of the Upper Thames Valley Mineral Conservation Area.</p> <p>This option scored poorly in the Issues &amp; Options SA, with a number of potentially negative effects indicated. <b>It was dropped</b>, as it did not accord with the spirit of national policy in MPS1, which encouraged MPAs to utilise MCAs where two-tier local government exist and where there are proven mineral resources.</p>                                                            | <p>being generated.</p> <p><b>SA Findings for MPO13</b> (as presented in the 2008 Preferred Options SA Non-technical Summary)</p> <p>In the test against the SA Objectives this option is broadly positive / major positive with the policy seeking to gain the highest value and usefulness from mineral resources in Gloucestershire which are integral to building homes / sustainable communities. No significant negative impacts are envisaged at this level of broad assessment. Major positive effects are likely in terms of building sustainable homes and communities, safeguarding sites, conserving mineral resources and reducing waste to landfill – given that the policy promotes prudent and efficient working – minimising waste.</p> | <p>preferred option could include a combination of more than one of the options.</p> <p><b>SA Findings</b></p> <p>The SA findings for the MSA proposed policies and delineating MSA options are presented in Appendix 5 and Chapter 5 of this SA Report.</p>                                                                                                                                                                                                                                                               |
| <b>Provision for Aggregates</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <p><b>ISSUE M4. Meeting Objective 2: Ensuring that the appropriate provision is made to meet the local, regional and national demand for minerals from environmentally acceptable sources in Gloucestershire.</b></p> <p><b>Aggregate Provision Options</b></p> <p><u>Options for what provision should be made:</u></p> <p><b>(Option 1):</b> <u>Business as usual</u> Provision to meet the new local apportionment for Gloucestershire.</p> <p><b>(Option 2):</b> Provision to meet the present level</p> | <p><b>The preferred options for Aggregates Provision included:</b></p> <p><b>Crushed Rock - Preferred Options MPO3a</b></p> <p>Preferred option MPO3a seeks to ensure sufficient provision is made to deliver the remaining local apportionment for crushed rock in Gloucestershire (presently 2006 to 2016). It also supports maintaining a 10-year landbank for crushed rock at the end of the guideline period at 2016.</p>                                                                                                                                                                                                                                                                                                                           | <p>There are five Aggregate Minerals Supply Strategic Policy Aims and Policies in Section 4 the 2014 MLP Consultation Document:</p> <ul style="list-style-type: none"> <li>• Strategic Policy Aim for Primary Aggregate Minerals-Meeting the Need.</li> <li>• Strategic Policy Aim for Primary Aggregate Minerals - Identifying Future Supply Areas.</li> <li>• Proposed Policy for Preferred Areas for Aggregates.</li> <li>• Proposed Policy for Proposals for the Working of Aggregates Outside of Preferred</li> </ul> |

| Minerals Core Strategy Issues & Options (2005-2007)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Minerals Core Strategy Preferred Options (2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Minerals Local Plan Site Options and Draft Policy Framework Consultation Document (June 2014)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| <p>of production.</p> <p><b>(Option 3):</b> Provision that takes account of potential constraints on reserves.</p> <p><b>(Option 4):</b> A combination of Options 1, 2 &amp; 3.</p> <p>In the SA test of these options at Issues &amp; Options, Options 1 and 2 were broadly positive in the short to medium term or neutral in terms of its effects. In the longer term there were uncertainties. Option 2 was broadly positive (at worst neutral) in the short to medium term, but effects would be uncertain in the long term. Option 4 (the combination option) was favoured. Its effects were uncertain in the longer term, but in the short to medium term effects were either neutral, positive or major positive (for Objectives 6, 7, 8 &amp; 9). However all of these options have (in part) been carried forward into the Preferred Options.</p> <p><u>Options for how provision should be made:</u></p> <p><b>(Option 5):</b> No subdivision – make provision from all aggregate resources present across the County.</p> <p><b>Parts of this option were dropped for crushed rock</b>, i.e. those references to retain the local, 70:30 split. (Note: There was no subdivision for sand &amp; gravel).</p> <p><b>(Option 6):</b> <u>Business as usual</u> Subdivide the amount of provision between the key aggregate resource areas in Gloucestershire.</p> <p>Option 5 effects in the medium to long term</p> | <p>Delivering this option would be based on a 70:30 split of the provision requirement between the Forest of Dean and Cotswold crushed rock resource areas. This approach was previously used with the adopted Minerals Local Plan.</p> <p>Based on the assessment carried out in Technical Paper MCS-B, option MPO3a may result in new working areas having to be identified within the Forest of Dean resource area. These working areas may include:</p> <ul style="list-style-type: none"> <li>• A new lateral or deepening extension(s) to one or more of the existing crushed rock quarries; and / or</li> <li>• An increase in size of one or more of the undeveloped preferred areas set out in the adopted Minerals Local Plan; and / or</li> <li>• A new greenfield site.</li> </ul> <p><b>SA Findings for MPO3a</b> (as presented in the 2008 Preferred Options SA Non-technical Summary)</p> <p>In the short to medium timeframe this option is broadly positive or neutral in terms of its effects. In the longer term there are a number of uncertainties and there are also uncertainties in the short / medium and long term against SA Objectives 5 – amenity protection, 8 – landscape / biodiversity issues, 9 – assets, 12 – reducing lorry impacts, 15 – reducing Climate Change impacts. It is most positive in terms of contributions to sustainable communities, employment and economic development</p> | <p>Areas.</p> <ul style="list-style-type: none"> <li>• Strategic Policy Aim for Alternative Aggregates.</li> </ul> <p>There are also 18 proposed sand and gravel and crushed rock site options presented under the Proposed Policy for Preferred Areas for Aggregates, split into four main areas as listed below. Some sites contain more than 1 parcel of land. These sites have been identified over the last couple of years when the Council has asked the minerals industry and landowners to submit sites which they consider are suitable for strategic aggregates extraction. In addition sites were allocated in the former 2003 MLP and any parcels of land from the plan which remain unpermitted have also been considered in this process.</p> <p><b>Crushed Rock sites in Forest of Dean</b></p> <p>CRFD1: Stowe Hill/Clearwell</p> <p>CRFD2: Drybrook</p> <p>CRFD3: Stowfield</p> <p>CRFD4: Hewelsfield</p> <p><b>Crushed Rock sites in Cotswolds</b></p> <p>CRCW1: Daglingworth</p> <p>CRCW2: Huntsmans</p> <p>CRCW3: Three Gates</p> <p>CRCW4: Oathill</p> <p><b>Sand and Gravel sites in Upper Thames</b></p> |

| Minerals Core Strategy Issues & Options (2005-2007)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Minerals Core Strategy Preferred Options (2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Minerals Local Plan Site Options and Draft Policy Framework Consultation Document (June 2014)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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| <p>were uncertain. No significant negative impacts were likely in the short term, most of the potential impacts were considered to be neutral or positive. Option 5 was unlikely to have either negative or positive impacts on the environment but may fail to reflect market and end-use needs for different aggregate resources available in the County. The Business as usual option was broadly favoured in the SA test at Issues &amp; Options as while there were uncertainties over some effects in the long term, in the short to medium term effects were positive or neutral. Major positive effects were likely in terms of SA Objectives 7 &amp; 8. However, <b>parts of both options 5 and 6 were carried forward into the Preferred Options.</b></p> <p><u>Options for the consideration of undeveloped MLP areas:</u></p> <p><b>(Option 7):</b> Business as usual: Roll forward all undeveloped adopted Minerals Local Plan preferred areas before considering new sites within the Mineral Sites Allocation Development Plan Document.</p> <p>The SA test of this option at Issues &amp; Options, found that in the short to medium term there were likely to be positive or major positive effects in terms of the majority of the SA Objectives. <b>This option was carried forward into the Preferred Options.</b></p> <p><b>(Option 8):</b> Carry out a review of undeveloped Minerals Local Plan preferred areas along with a</p> | <p>opportunities in the county, promoting health and well-being and providing for the supply of aggregates and other minerals sufficient for the needs of society. It is not possible to fully appraise the impact of this policy in isolation - although in general terms making an appropriate contribution to supply of minerals is deemed positive – further detailed assessment of where and how the mineral will be extracted is essential.</p> <p><b>MPO3b</b></p> <p>Preferred option MPO3b looks to adopt a more strategic / sub-regional approach to meeting the county's provision requirements. Its aim is to resolve the projected local shortfall in crushed rock provision by considering the merits of re-apportionment for Gloucestershire. This would be based on a comparative assessment between remaining crushed rock resources in the county and those within less constrained resource areas found within South Gloucestershire, North</p> <p>Somerset and / or Somerset.</p> <p>In delivering option MPO3b, environmental constraints, technical acceptability and economic viability issues within each subregional resource area, will need to be fully and comparatively assessed. A full subregional level Sustainability Appraisal and Appropriate Assessment of each resource area will also be required. Furthermore, due to the strategic nature of this option, the South West Regional Assembly (SWRA) as the RPB will need to take</p> | <p><b>Valley</b></p> <p>SGCW1: Dryleaze Farm/Shorncote</p> <p>SGCW2: Cerney Wick</p> <p>SGCW3: Horcott/Lady Lamb Farm</p> <p>SGCW4: Kempsford/Whelford</p> <p>SGCW5: Down Ampney</p> <p>SGCW6: Charlham Farm</p> <p>SGCW7: Wetstone Bridge</p> <p>SGCW8: Spratsgate Lane</p> <p><b>Sand and Gravel sites in Severn Vale</b></p> <p>SGTW1: Page's Lane</p> <p>SGTW2: Redpools Farm</p> <p><b>SA Findings</b></p> <p>The SA findings for the five Aggregate Minerals Supply Strategic Policy Aims and Policies are presented in Appendix 5 and Chapter 5 of this SA Report.</p> <p>The SA findings for each of the 18 sites (including the individual land parcels within them) are presented in Appendix 6 and Chapter 5 of this SA Report.</p> |

| Minerals Core Strategy Issues & Options (2005-2007)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Minerals Core Strategy Preferred Options (2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Minerals Local Plan Site Options and Draft Policy Framework Consultation Document (June 2014) |
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| <p>consideration of new sites within the Mineral Sites Allocation Development Plan Document.</p> <p>Although this option performed reasonably well in the Issues &amp; Options SA test, <b>it was dropped</b>, as under transitional arrangements the existing undeveloped preferred areas remained part of the development plan until formally replaced. As set out in Minerals Technical Evidence Paper MCS-A and B and the Preferred Options 'Spatial Strategy' the undeveloped preferred areas also needed to secure the potential provision requirements of the MCS.</p> <p><b>(Option 9):</b> A phasing approach / strategy for determining the release of new aggregate reserves.</p> <p>The scores for this option in terms of the SA of the Issues &amp; Options were 'mixed' with a reasonably high degree of uncertainty. <b>The option was dropped</b>, as the approach was not advocated in national policy in MPS1. This approach was potentially inflexible and could be contrary to MPS1 where it failed to release new aggregate reserves in the context of landbank requirements.</p> | <p>a leading role in undertaking the comparative assessment alongside the full co-operation of the respective minerals planning authorities</p> <p><b>SA Findings for MPO3b</b> (as presented in the 2008 Preferred Options SA Non-technical Summary)</p> <p>This is a very difficult option to assess. In terms of considering the merits of re-apportionment for Gloucestershire, a detailed comparative assessment of the remaining crushed rock resources in the county and those within potentially less constrained resource areas within South Gloucestershire, North Somerset / Somerset is required. Within this assessment environmental constraints / capacity, technical feasibility and economic viability will have to be considered. The SA scores reflect a broad strategic consideration of the likely effects for Gloucestershire. Against the SA Objectives there are positive /major positive effects anticipated in terms of broad sustainable development / sustainable communities and in terms of the supply of aggregates. Many of the other scores are either positive or neutral. Uncertainties exist over employment issues in the longer term – quarrying jobs may be lost in Gloucestershire, and in terms of the amenity of local communities.</p> <p><b>MPO3c</b></p> <p>Preferred option MPO3c proposes a local reassessment within the county resources of delivering Gloucestershire's local</p> |                                                                                               |

| Minerals Core Strategy Issues & Options<br>(2005-2007) | Minerals Core Strategy Preferred Options<br>(2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Minerals Local Plan Site Options and Draft<br>Policy Framework Consultation Document<br>(June 2014) |
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|                                                        | <p>apportionment. This option would mean a more flexible approach to making provision by utilising all of the county's existing permitted reserves and potential reserves within undeveloped preferred areas. This is in preference to focusing upon the limitations of specific resource areas, as identified within the adopted Minerals Local Plan.</p> <p>A potential result of this option would be a revised split of local provision requirements between the Forest of Dean and Cotswold resource areas. A realistic assessment of deliverability would need to be made regarding this option. However, it may also highlight a more fundamental review of the local apportionment, such as reappportionment for Gloucestershire as considered under option MPO3b.</p> <p><b>SA Findings for MPO3c</b> (as presented in the 2008 Preferred Options SA Non-technical Summary)</p> <p>In the test of this option against the SA Objectives, this option produces mixed, but not negative results. There are major positive effects anticipated in the short to medium term in terms of broad sustainable development / sustainable communities, and in terms of the supply of aggregates needed by society. Many of the other scores are either uncertain or neutral. The uncertainties in the longer term partially stem from questions over deliverability and whether the mineral resources are workable? Employment and economic development scores are broadly positive. In</p> |                                                                                                     |

| Minerals Core Strategy Issues & Options<br>(2005-2007) | Minerals Core Strategy Preferred Options<br>(2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Minerals Local Plan Site Options and Draft<br>Policy Framework Consultation Document<br>(June 2014) |
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|                                                        | <p>terms of amenity and environmental protection issues clearly further testing at the sites level will be necessary.</p> <p><b>Sand &amp; Gravel Provision - Preferred Options</b></p> <p><b>MPO4a</b></p> <p>Preferred option MPO4a seeks to ensure sufficient provision is made to meet the remaining local apportionment of sand &amp; gravel for Gloucestershire (presently 2006 to 2016). It also supports maintaining a 7- year landbank for sand &amp; gravel at the end of the guideline period at 2016.</p> <p>Based on the assessment carried out in the Technical Paper MCS-A, option MPO4a may result in additional areas for future mineral working having to be identified.</p> <p><b>SA Findings for MPO4a</b> (as presented in the 2008 Preferred Options SA Non-technical Summary)</p> <p>Sand and gravel resources are used for a wide range of end-uses and infrastructure essential for modern life, but Gloucestershire does have a wide range of environmental assets which may be affected by extraction and transportation and there may be negative impacts on local amenity. However the issues for sand and gravel extraction are very different from hard rock quarries, and potentially there are significant landscape and biodiversity gains achievable. In the short to medium timeframe a number of SA scores are</p> |                                                                                                     |



| Minerals Core Strategy Issues & Options<br>(2005-2007) | Minerals Core Strategy Preferred Options<br>(2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Minerals Local Plan Site Options and Draft<br>Policy Framework Consultation Document<br>(June 2014) |
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|                                                        | <p>major positive in terms of contributions to sustainable communities, employment and economic development opportunities, promoting health and well-being and providing for the supply of aggregates and other minerals sufficient for the needs of society. In the longer term there are a number of uncertainties and there are also uncertainties in the short / medium and long term against SA Objectives 5 – amenity protection, 8 – landscape / biodiversity issues, 9 – assets, 12 – reducing lorry impacts, 15 – reducing Climate Change impacts.</p> <p><b>MPO4b</b></p> <p>Preferred option MPO4b looks to adopt a similar methodology to that of option MPO4a, by seeking to ensure sufficient provision is made to meet the local apportionment for Gloucestershire. However, it supports a longer landbank provision through to 2026, which is 10 years beyond the end of the guideline period. The aim of option MPO4b is to synchronise the local policy for sand &amp; gravel provision with that of the spatial vision of the MCS and the emerging RSS.</p> <p><b>SA Findings for MPO4b</b> (as presented in the 2008 Preferred Options SA Non-technical Summary)</p> <p>In terms of the SA Objectives, this option is scored identically to MPO4A because it is fundamentally similar other than supporting a longer landbank provision. However the uncertainties in the longer term are potentially</p> |                                                                                                     |



| Minerals Core Strategy Issues & Options<br>(2005-2007) | Minerals Core Strategy Preferred Options<br>(2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Minerals Local Plan Site Options and Draft<br>Policy Framework Consultation Document<br>(June 2014) |
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|                                                        | <p>more marked. (See comments for MPO4a).</p> <p><b>MPO4c</b></p> <p>Preferred Option MPO4c proposes a more strategic / sub-regional approach to sand &amp; gravel provision. It offers more proactive support for resolving the projected shortfall in the sand &amp; gravel provision across the region.</p> <p>Beyond the local requirements observed in options MPO4a and MPO4b, this option proposes a potential additional commitment for Gloucestershire. It is based upon maintaining appropriate, steady and consistent supplies of sand &amp; gravel right across the strategic resource area of the Upper Thames Valley. This may result in Gloucestershire subsuming some of the local provision requirements for the neighbouring areas of Wiltshire and Swindon.</p> <p>The aim of option MPO4c is to expand existing joined-up working for minerals in the Upper Thames Valley. Through close coordination this may also support opportunities to develop a holistic spatial strategy for the area that goes beyond mineral developments.</p> <p>Delivering option MPO4c will require changes to the local apportionment for Gloucestershire. It may also require fundamental changes to working arrangements in the Upper Thames including a formal joint working policy and / or a change in how decisions are taken in the area.</p> <p><b>SA Findings for MPO4c</b> (as presented in the 2008 Preferred Options SA Non-technical</p> |                                                                                                     |

| Minerals Core Strategy Issues & Options<br>(2005-2007) | Minerals Core Strategy Preferred Options<br>(2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Minerals Local Plan Site Options and Draft<br>Policy Framework Consultation Document<br>(June 2014) |
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|                                                        | <p>Summary)</p> <p>This option represents a more proactive approach for resolving the projected shortfall in sand and gravel provision in the Region. Scores against the SA Objectives are positive (not uncertain) in the long term –as the source of resource is known i.e. the Upper Thames Valley. The option is broadly positive / major positive (against 10 of the 15 SA Objectives). Uncertainties are recorded in terms of amenity issues (depends on sites?), flooding / hydrology and initiatives to reduce waste to landfill. On the flooding issue, the County Council is commissioning consultants to undertake a Strategic Flood Risk Assessment (SFRA) and it is expected that this will tie in with Wiltshire’s SFRA. This is particularly important in the context of this wider strategic / sub regional option.</p> <p><b>Sand &amp; Gravel Locations - Preferred Options</b></p> <p>Preferred options MPO5a and MPO5b do not offer additional policy alternatives for the provision or supply of sand &amp; gravel. Instead they consider locational options for delivering preferred options MPO4a, MPO4b or MPO4c.</p> <p><b>MPO5a</b></p> <p>Preferred option MPO5a proposes a more dispersed strategy for future sand &amp; gravel working. Whilst recognising the strategic significance of the Upper Thames Valley resource area, it seeks to acknowledge the provision potential of the Severn Vale Corridor</p> |                                                                                                     |

| Minerals Core Strategy Issues & Options<br>(2005-2007) | Minerals Core Strategy Preferred Options<br>(2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Minerals Local Plan Site Options and Draft<br>Policy Framework Consultation Document<br>(June 2014) |
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|                                                        | <p>resource area. Where the spatial strategy indicates that new site allocations should be identified, the relative merits of potential sites within each resource area will be considered.</p> <p><b>SA Findings for MPO5a</b> (as presented in the 2008 Preferred Options SA Non-technical Summary)</p> <p>In terms of the test against the SA Objectives, broadly positive impacts are anticipated from this more dispersed strategy for sand and gravel locations. The approach is flexible but still provides minerals resource needed for house building / infrastructure etc. There are uncertain impacts in terms of Objective 10 due to the fact that potential sites in the Severn Vale may be / are very prone to serious flooding. This could be negative in terms of additional costs / impacts associated with pumping and positive in terms of presenting opportunities for flood storage. These issues are likely to be addressed through Gloucestershire's SFRA. There are other uncertainties in terms of amenity issues, lorry traffic issues (will a dispersed strategy also disperse negative HGV issues?), reducing waste to landfill and reducing contributions to climate change. In terms of this option's potential for flood storage capacity, this clearly is one potentially effective form of mitigation against climate change induced flood events. The one major positive score in the SA test relates to providing supply.</p> <p><b>MPO5b</b></p> |                                                                                                     |

| Minerals Core Strategy Issues & Options<br>(2005-2007)                                                                              | Minerals Core Strategy Preferred Options<br>(2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Minerals Local Plan Site Options and Draft<br>Policy Framework Consultation Document<br>(June 2014)                                                    |
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|                                                                                                                                     | <p>Preferred Option MPO5b proposes a preference towards future sand &amp; gravel working within the Upper Thames Valley resource area. Where new mineral site allocations are required in the future, these will be focused within the Gloucestershire section of this resource area.</p> <p><b>SA Findings for MPO5b</b> (as presented in the 2008 Preferred Options SA Non-technical Summary)</p> <p>In terms of SA Objective 1, which is the objective which tests broad sustainability, the option is likely to have major positive effects in the medium to long term given the potential opportunities for joint working e.g. with Wiltshire / Swindon, building on economies of scale and a master planning process that takes account of a variety of issues over and beyond minerals planning. However there are a number of uncertainties in terms of flooding / hydrological issues, traffic impacts, reducing waste to landfill and reducing contributions to climate change. Flooding issues should be addressed through the SFRAs undertaken by Gloucestershire and Wiltshire. The reductions to landfill issue is a complex one due to questions over the classification of inert material as 'landfill' or 'reuse'.</p> |                                                                                                                                                        |
| <b>Provision for Clay</b>                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                        |
| <b>ISSUE M4b. Ensuring that the appropriate provision is made to meet the local, regional and national demand for Clay Minerals</b> | <p><b>The Preferred Option for Clay was:</b></p> <p><b>MPO6 Clay</b></p> <p>Preferred Option MPO6 proposes two criteria-</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <p>There are seven Non-Aggregate Minerals Policies included in Section 5 of the 2014 MLP Consultation Document, including two in relation to clay:</p> |

| Minerals Core Strategy Issues & Options (2005-2007)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Minerals Core Strategy Preferred Options (2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Minerals Local Plan Site Options and Draft Policy Framework Consultation Document (June 2014)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| <p><b>(Option 10):</b> <u>Business as usual</u> Roll forward the existing criteria based policy in the Minerals Local Plan.</p> <p>The scores for this option in terms of the SA of the Issues &amp; Options were broadly positive / neutral in the short term, with some uncertainties in the medium to longer term.</p> <p><b>This option was effectively carried forward into the Preferred Options.</b> However some changes were introduced to reflect detailed guidance set out in MPS1 Annex 2.</p> <p><b>(Option 11):</b> Identify preferred areas for future clay working based on an assessment of resources, site capacities and the forecast future demand for clay.</p> <p>The SA of the Issues &amp; Options questioned whether such a strategy was necessary or sustainable. <b>The option was dropped</b>, as the evidence base did not suggest there was a sufficient provision issue over the MCS time period to pursue the allocation of preferred areas for future working.</p> | <p>based policies – one for brick clays; and one for other engineering purposes. The brick clay policy will consider the acceptability of future clay extraction in relation to local brickworks and the exportation of clay minerals to strategic brickwork sites that may lie outside of the county. It will also consider the acceptability of mineral importation and on-site stockpiling.</p> <p>The other engineering policy will consider the acceptability of future clay extraction in the context of need, local environmental capacity; public amenity; transportation, restoration potential; and opportunities to reuse materials back on-site.</p> <p><b>SA Findings for MPO6</b> (as presented in the 2008 Preferred Options SA Non-technical Summary)</p> <p>The effects are likely to be broadly positive; major positive scores are indicated against 6 of the SA Objectives across the short, medium to long term. As this is a criteria based approach benefits could be quickly realised. Clay is needed by brickworks in Gloucestershire, and bricks remain an essential component of modern house building / construction. Clay is also needed in considerable volumes for flood defense engineering and for landfill capping. Waste management is moving away from landfill as a disposal route but some landfill disposal (and associated restoration) disposal may remain necessary for some time into the future. This is a significant issue for Gloucestershire which has a large amount of</p> | <ul style="list-style-type: none"> <li>• Proposed Policy for Brick Clay.</li> <li>• Proposed Policy for Engineering Clay.</li> </ul> <p>Although no sites for clay extraction are proposed for the MLP, there was a policy in the 2003 adopted MLP (NE2) that needs to be replaced in order to ensure there is an adequate policy framework in place for any applications for clay extraction to be determined. Therefore, the two clay policies propose criteria against which applications for clay extraction will be assessed.</p> <p><b>SA Findings</b></p> <p>The SA findings for the two Proposed Policies for Clay are presented in Appendix 5 and Chapter 5 of this SA Report.</p> |

| Minerals Core Strategy Issues & Options (2005-2007)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Minerals Core Strategy Preferred Options (2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Minerals Local Plan Site Options and Draft Policy Framework Consultation Document (June 2014)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | void at the Wingmoor farm sites. In terms of SA Objective 12, negative impacts may result given the fact that sustainable transport opportunities may be limited and the policy accepts importation and stockpiling.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Provision for Building Stone</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <p><b>ISSUE M4c. Ensuring that the appropriate provision is made to meet the local, regional and national demand for Building Stones</b></p> <p><b>(Option 12):</b> <u>Business as usual</u> Roll forward the existing criteria based policy in the Minerals Local Plan.</p> <p><b>(Option 13):</b> Identify preferred areas for building stone based on an assessment of resources, site capacities and the forecast future demand for different building stone types.</p> <p>In the test of these options through the Issues &amp; Options SA, one was not particularly favoured over another. Option 12 scored slightly better in terms of conserving resources, employment provision and contributing to the protection and enhancement of historic buildings etc. They were both broadly positive against a number of SA objectives. <b>Both options were carried forward into the Preferred Options.</b></p> | <p><b>The Preferred Options for Building Stone were:</b></p> <p><b>MPO7a</b></p> <p>Preferred Option MPO7a looks to apply the existing building stone policy used in the adopted Minerals Local Plan – Policy NE1. This policy provides a clear decision making framework including four criteria for new building stone proposals –</p> <ul style="list-style-type: none"> <li>• A demonstration of ‘need’ for the stone;</li> <li>• The consideration of restoration benefits, heritage and the local economy;</li> <li>• An evaluation of crushing and screening of stone linked to aggregate production; and;</li> <li>• A review of other generic issues including local amenity, the environment and transportation.</li> </ul> <p><b>SA Findings for MPO7a</b> (as presented in the 2008 Preferred Options SA Non-technical Summary)</p> <p>Against the SA Objectives broadly positive or neutral effects are likely. Major positive scores</p> | <p>There are seven Non-Aggregate Minerals Policies included in Section 5 of the 2014 MLP Consultation Document, including one in relation to building stone:</p> <ul style="list-style-type: none"> <li>• Proposed Policy for Building Stone.</li> </ul> <p>Although no sites for building stone extraction are proposed for the MLP, there was a policy in the 2003 adopted MLP (NE1) that needs to be replaced in order to ensure there is an adequate policy framework in place for any applications for building stone to be determined. Therefore, the building stone policy proposes criteria against which applications for building stone extraction will be assessed.</p> <p><b>SA Findings</b></p> <p>The SA findings for the Proposed Policy for Building Stone are presented in Appendix 5 and Chapter 5 of this SA Report.</p> |

| Minerals Core Strategy Issues & Options<br>(2005-2007) | Minerals Core Strategy Preferred Options<br>(2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Minerals Local Plan Site Options and Draft<br>Policy Framework Consultation Document<br>(June 2014) |
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|                                                        | <p>are indicated against SA Objective 9 -to protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage. Section 3.2 of this report states that despite the UK wide downturn in the production of building stone over the last 100 years or so, the local market has remained relatively constant, and there is a steady need from the building conservation / historic environment sector. Planning policies and controls are influencing this market through district local plans and technical planning guides where support is given for the use of natural local stone. Minor negative impacts are indicated against SA Objective 8 – the protection of the natural environment / biodiversity / landscape, due to the fact that some building stone quarries (particularly in upland AONB) can be both visible (breaking the scarp / ridgeline) and difficult to restore successfully.</p> <p><b>MPO7b</b></p> <p>Preferred Option MPO7b proposes to expand upon the existing building stone policy used in the adopted Minerals Local Plan. It seeks to introduce the concept of 'local distinctiveness' and to develop a more 'spatial' approach to the future management of the county's building stone resources. It sets out four additional elements –</p> <ul style="list-style-type: none"> <li>• A direct reference to the county's key natural building &amp; roofing stone resource areas;</li> <li>• A link between the MCS's mineral</li> </ul> |                                                                                                     |

| Minerals Core Strategy Issues & Options (2005-2007) | Minerals Core Strategy Preferred Options (2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Minerals Local Plan Site Options and Draft Policy Framework Consultation Document (June 2014) |
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|                                                     | <p>safeguarding policy and delineated minerals safeguarding areas (MSAs) for natural building &amp; roofing stone; Specific criteria for hybrid-building stone quarries; and</p> <ul style="list-style-type: none"> <li>• A link between rural economy strategies and relevant District Local Development Framework (LDFs) in the context of local employment opportunities.</li> </ul> <p><b>SA Findings for MPO7b</b> (as presented in the 2008 Preferred Options SA Non-technical Summary)</p> <p>This option scores better than Option MPO7A. Positive or major positive scores are given against 9 of the 15 SA Objectives. In terms of employment and economic development the option scores well due to the links with Local Development Frameworks and rural economic strategies. Building stone quarries can be significant employers of local people in rural areas. As for MPO7a negative scores are given in terms of the potential landscape impacts. It depends on the sites and further testing may need to be done where appropriate through the SA of the Mineral Site Allocations DPD.</p> <p><b>MPO7c</b></p> <p>Preferred Option MPO7c proposes the same resource safeguarding approach as highlighted in option MPO7b. However, also looks to allocate specific sites for the future working of natural building &amp; roofing stone. This option would provide a greater degree of certainty in terms of securing future provision. However,</p> |                                                                                               |



| Minerals Core Strategy Issues & Options (2005-2007)  | Minerals Core Strategy Preferred Options (2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Minerals Local Plan Site Options and Draft Policy Framework Consultation Document (June 2014) |
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|                                                      | <p>due to the complexity of resources in the county, preferred areas will only be considered where a sufficient evidence base has been made available. This would include the geological reliability of resources and a clear demonstration of the 'need' for the stone; or particular stone products at a local, regional, and / or national level. Information to this effect should be forthcoming from interested stakeholders, such as prospective quarry operators alongside English Heritage and local building conservation officers in respect of the 'need' issue.</p> <p><b>SA Findings for MPO7c</b> (as presented in the 2008 Preferred Options SA Non-technical Summary)</p> <p>This option scores well due to the degree of certainty provided by the site allocation process. Against a number of the SA Objectives major positive effects are anticipated particularly in the medium to long term. Like the other building stone / roofing stone options it scores better against the objectives which have a social / economic focus, and less well in terms of the environmental ones e.g. Objective 8. In terms of the potential for successful restoration this option is favored over MPO7A &amp; B as the sites approach will fully address end-use / restoration issues.</p> |                                                                                               |
| <b>Provision for Coal</b>                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                               |
| <b>ISSUE M4d. Future Provision for Coal Minerals</b> | <b>The Preferred Option for Coal was:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | There are seven Non-Aggregate Minerals Policies included in Section 5 of the 2014 MLP         |

| Minerals Core Strategy Issues & Options (2005-2007)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Minerals Core Strategy Preferred Options (2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Minerals Local Plan Site Options and Draft Policy Framework Consultation Document (June 2014)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| <p><b>(Option 14): <u>Business as usual</u></b> Continuation of the current sequential test / criteria approach.</p> <p>This option scored well against a number of the SA Objectives at the Issues and Options Stage. <b>It was carried forward into the Preferred Options.</b></p> <p>Note that the Issues &amp; Options SA Report (2006) stated that other options have not been tested because the specific criteria are not specified. It may be possible to test other options if they come forward as a result of public consultation.</p> | <p><b>MPO8</b></p> <p>Preferred Option MPO8 proposes to apply the existing policy framework for coal resources used in the adopted Structure Plan and Minerals Local Plan. It will include a clear presumption against opencast coal working and associated development within the Forest of Dean unless it is can be proved acceptable on local environmental, amenity and economic regeneration grounds, or where sufficient long-term local benefits can outweigh adverse impacts. However, for localised small-scale working under 'freeminers' rights, support will be given to this type development where it meets strict environmental standards and contributes to the cultural and industrial heritage of the area.</p> <p><b>SA Findings for MPO8</b> (as presented in the 2008 Preferred Options SA Non-technical Summary)</p> <p>In general the test of this option against the SA Objectives indicates that effects are likely to be broadly positive or neutral. The option scores particularly well in terms of Objective5 – protecting amenity. There is a potential negative impact in terms of Objective 15 – given the clear issues with coal burning and emissions to the atmosphere. But dependent on the scale of working and the scale of use. The adopted MLP policy reflects the national policy, which seeks to restrict the environmental consequences of open cast coal extraction on the local community. The coal resource of the Forest of Dean is a valuable</p> | <p>Consultation Document, including three in relation to coal:</p> <ul style="list-style-type: none"> <li>Proposed Policy for Small Scale Coal Underground Mines.</li> <li>Proposed Policy for Opencast Coal.</li> <li>Proposed Policy for Re-working of Colliery Spoil Tips.</li> </ul> <p>The 2003 MLP included a policy framework for coal and hydrocarbons. Taking account of representations made to the earlier consultations and more recent up-to-date issues considered within the Minerals Technical Evidence Paper, the three policies above for coal are now proposed, and an additional policy for conventional and unconventional hydrocarbons is also proposed:</p> <ul style="list-style-type: none"> <li>Proposed Policy for Conventional and Unconventional Hydrocarbons.</li> </ul> <p><b>SA Findings</b></p> <p>The SA findings for the four Proposed Policy for energy minerals are presented in Appendix 5 and Chapter 5 of this SA Report.</p> |

| Minerals Core Strategy Issues & Options (2005-2007)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Minerals Core Strategy Preferred Options (2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Minerals Local Plan Site Options and Draft Policy Framework Consultation Document (June 2014)                                                                                                                            |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | natural resource and the area is defined by its industrial heritage related to coal extraction. The Free mining rights allow for small-scale coal extraction with minimal environmental consequences whilst maintaining a unique part of the Forest's cultural heritage which needs to be reflected in the MCS policies. However, the sustainable implications of large scale open cast coal extraction need to be fully assessed in a way outlined in the current MLP policies.                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                          |
| <b>Strategy for Sites</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                          |
| <p><b>ISSUE M4d. A spatial strategy for ensuring that appropriate provision is made to meet the local, regional and national demand for minerals</b></p> <p><b>(Option 15):</b> <u>Business as usual</u> 'Preferred Area' approach.</p> <p>This option was generally very positive in the SA test at Issues and Options. <b>It was effectively carried forward into the Preferred Options.</b></p> <p><b>(Option 16):</b> A combined preferred area and areas of search approach.</p> <p>In the SA of the Issues &amp; Options this option produced broadly positive results in the short to medium term, but some uncertainty in the longer term. <b>It was unlikely that areas of search will form part of the MCS.</b> The level of additional provision likely to be needed once all undeveloped preferred areas have been considered will be sufficiently low to be</p> | <p>The MCS Preferred Options paper proposes in Section 6 (the Spatial Strategy) to roll forward the 'extensions' approach of the Structure Plan and Minerals Local Plan over the short-term. This is due to the issue of deliverability and a reflection of the level of infrastructure, which has been already been invested into existing mineral sites. It is also an acknowledgement that many of preferred areas for future working, have yet to be developed, but are still available.</p> <p>However, at the time, it was not intended to include any specific site allocations in the Minerals Core Strategy, rather the MCS preferred options were intended to evolve into providing the parameters for how future working opportunities would be allocated in a later mineral site allocations development plan document.</p> <p>Consequently, the 2008 Preferred Options SA Report did not appraise this aspect of the</p> | <p>See above – the current 2014 MLP Consultation Document does propose 18 site options for crushed rock and sand and gravel extraction, and these have been appraised in Appendix 6 and Chapter 5 of this SA Report.</p> |

| Minerals Core Strategy Issues & Options (2005-2007)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Minerals Core Strategy Preferred Options (2008)                                                                                                                                                                                                                              | Minerals Local Plan Site Options and Draft Policy Framework Consultation Document (June 2014)                                                                                                                                                                                                                                                     |
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| <p>adequately covered through the identification of new preferred areas. Furthermore, the evidence base on remaining mineral resources is sufficiently robust and detailed to lead to the identification of deliverable preferred areas for future working.</p> <p><b>(Option 17):</b> Giving preference to extensions to existing mineral workings before looking at new green field sites.</p> <p>This option was not particularly favoured in the Issues &amp; Options SA due to uncertainties in the long term, and the fact that while there is an assumption that extensions to mineral sites have lower level of environmental impact than development on greenfield sites, such sites may not have been subject to a strategic sustainable appraisal prior to commencement, and in a modern planning context may not have provided the most sustainable location.</p> <p><b>It was dropped as an overriding principle,</b> in favour of a more rigorous assessment including through SA and Habitat Regulation Assessment / AA work.</p> | <p>Preferred Options as there was no specific Preferred Option on preferred areas to appraise.</p>                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                   |
| <p><b>Protecting environmental assets</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                   |
| <p><b>ISSUE M5. Meeting Objective 3: Protecting where possible the natural, historic and cultural assets of Gloucestershire</b></p> <p><b>(Option 1): <u>Business as usual</u></b> Retain environmental constraints hierarchy as a basis for protecting the environment from mineral</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <p><b>The Preferred Option for the Environment was:</b></p> <p><b>MPO10</b></p> <p>Preferred Option MPO10 seeks to continue the constraints hierarchy as applied within the adopted Minerals Local Plan. This hierarchy will be used within the MCS as the framework for</p> | <p>Seven out of the eight Proposed Policies in Section 6 of the 2014 MLP Consultation Document relate to protection of natural, historical and cultural assets, as follows (excluding Sustainable Transport):</p> <ul style="list-style-type: none"> <li>• Proposed Policy for Flood Risk</li> <li>• Proposed Policy for Water Quality</li> </ul> |

| Minerals Core Strategy Issues & Options (2005-2007)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Minerals Core Strategy Preferred Options (2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Minerals Local Plan Site Options and Draft Policy Framework Consultation Document (June 2014)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| <p>development.</p> <p>In the SA of the Issues &amp; Options, Options 1 &amp; 2 were broadly positive in sustainability terms and were similarly scored against the objectives. <b>Parts of this option were dropped</b> due to the fact that the existing constraints hierarchy and associated policies did not accord with updated national policy set out in PPS7 and PPS9.</p> <p><b>(Option 2):</b> Review the environmental constraints hierarchy in the context of the Regional Spatial Strategy and new government guidance.</p> <p><b>This option was effectively carried forward into the Preferred Options.</b></p> | <p>future detailed policies within the Development Control Policies Development Plan Document. It will also assist in the identification and consideration of future mineral site allocations. However, to reflect updated national policy on environmental designations and minerals development the structure and content of the hierarchy will be amended. Furthermore, where new and appropriate designated assets exist these will be incorporated into the hierarchy.</p> <p><b>SA Findings for MPO10</b> (as presented in the 2008 Preferred Options SA Non-technical Summary)</p> <p>The environmental constraints hierarchy in the current Minerals Local Plan seeks to strike a balance between "...the need for the mineral and the environmental impact of mineral development." In this hierarchy the following are 'Principal Constraints':</p> <ol style="list-style-type: none"> <li>1. Ramsar Sites,</li> <li>2. Special Areas of Conservation, &amp;</li> <li>3. Special Protection Areas.</li> </ol> <p>'Primary Constraints' are listed as</p> <ol style="list-style-type: none"> <li>1. Areas of Outstanding Natural Beauty,</li> <li>2. Sites of Special Scientific Interest,</li> <li>3. National Nature Reserves,</li> <li>4. Scheduled Ancient Monuments,</li> <li>5. Nationally Important Archaeological Sites and Settings,</li> <li>6. Listed Buildings/Conservation Areas,</li> <li>7. Registered Historic Parks and Gardens,</li> <li>8. Registered Battlefields,</li> <li>9. Best and Most Versatile Agricultural Land</li> </ol> | <ul style="list-style-type: none"> <li>• Proposed Landscape Policy</li> <li>• Proposed policy for Mineral Working in the Green Belt</li> <li>• Proposed Policy for Biodiversity &amp; Geodiversity</li> <li>• Proposed Policy for the Historic Environment</li> <li>• Proposed Development Management Criteria for the Historic Environment.</li> <li>• <i>Proposed Policy for Sustainable Transport</i></li> </ul> <p>There are also the following proposed development management policies in Section 8 of the MLP Consultation Document that are relevant to protection of natural, historical and cultural assets (those in <i>italics</i> are not relevant):</p> <ul style="list-style-type: none"> <li>• Proposed Policy for Mitigation of Environmental Effects</li> <li>• Proposed Policy for Ancillary Development</li> <li>• <i>Proposed Policy for Safeguarding Aerodromes</i></li> <li>• Proposed Policy for Planning Obligations</li> <li>• <i>Proposed Policy for Borrow Pits</i></li> <li>• Proposed Policy for Cumulative Impact</li> <li>• Proposed Policy for Soils</li> <li>• Proposed Policy for Public Rights of Way</li> <li>• Proposed Policy for Buffer Zones</li> </ul> |

| Minerals Core Strategy Issues & Options (2005-2007)                                                                                                                                                                                                                                                                                                                             | Minerals Core Strategy Preferred Options (2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Minerals Local Plan Site Options and Draft Policy Framework Consultation Document (June 2014)                                                                                                                                                                                                                                                                           |
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|                                                                                                                                                                                                                                                                                                                                                                                 | <p>10. Water Environment.</p> <p>Secondary Constraints include:</p> <ol style="list-style-type: none"> <li>1. Special Landscape Areas,</li> <li>2. Local Nature Reserves,</li> <li>3. Wildlife Corridors,</li> <li>4. Locally Important Archaeological Remains,</li> <li>5. Locally important Historic Parks and Gardens,</li> <li>6. Regionally Important Geological and Geomorphological Sites,</li> <li>7. Green Belt.</li> </ol> <p>In the test against the SA Objectives there are major positive scores in terms of the objectives that seek to protect and enhance the environment, including the historic environment - (as clearly the above list is very comprehensive). There are neutral scores in terms of safeguarding sites, reducing the adverse impacts of lorry traffic, mineral restoration, and the objective to reduce waste to landfill.</p> | <p><b>SA Findings</b></p> <p>The SA findings for the all of the above Proposed Policies relating to protection of natural, cultural and historic assets are presented in Appendix 5 and Chapter 5 of this SA Report.</p>                                                                                                                                                |
| <b>Restoration of mineral sites</b>                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                         |
| <p><b>ISSUE M6. Meeting Objective 4: Ensuring that mineral sites are restored to the highest possible standard that is capable of providing for a range of sustainable after-uses, and that this is done as quickly as possible</b></p> <p><b>(Option 1):</b> <u>Business as usual</u> Retain the existing policy approach for progressive restoration of mineral workings.</p> | <p><b>The two Preferred Options for Restoration were:</b></p> <p><b>MPO12a</b></p> <p>Preferred Option MPO12a proposes to include spatial opportunities resulting from minerals restoration into the MCS policy. It will accomplish this by referencing key spatial priorities, which may be supported by future mineral working within the county's mineral</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <p>There are three proposed policies that relate to the restoration of mineral workings in Gloucestershire in Section 7 of the 2014 MLP Consultation Document, as follows:</p> <ul style="list-style-type: none"> <li>• Proposed Strategic Aim for the Cotswold Water Park</li> <li>• Proposed Restoration Policy</li> <li>• Proposed Development Management</li> </ul> |

| Minerals Core Strategy Issues & Options (2005-2007)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Minerals Core Strategy Preferred Options (2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Minerals Local Plan Site Options and Draft Policy Framework Consultation Document (June 2014)                                                                                                   |
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| <p>In terms of the SA test of these three options at the Issues &amp; Options stage, they were broadly positive and broadly similar. <b>This option was effectively carried forward into the Preferred Options.</b></p> <p><b>(Option 2):</b> <u>Business as usual</u> Retain existing policies in the Minerals Local Plan which encourage beneficial after-uses on a site-by-site basis.</p> <p><b>Elements of this option were discarded</b> due to the fact that pre-determined restoration options would be either signposted or specifically set out in the Core Strategy.</p> <p><b>(Option 3):</b> Alternative policies which look to achieve pre-determined restoration, aftercare and afteruse criteria for certain areas of the County.</p> <p><b>This option was effectively carried forward into the Preferred Options.</b></p> | <p>resources areas.</p> <p><b>SA Findings for MPO12a</b> (as presented in the 2008 Preferred Options SA Non-technical Summary)</p> <p>In the test against the SA Objective this option is broadly positive but there are a number of uncertainties. The uncertainties in the longer term stem from the fact that the defined or stated spatial priorities could change over time, and there is hence a lack of flexibility. Major positive scores are indicated in terms of the promotion of sustainable development / communities / providing homes and the restoration of minerals sites (in the short to medium term). There are no significant negative effects indicated at this level of assessment. There are clearly major opportunities in Gloucestershire (particularly in the Cotswold Water Park / Upper Thames Valley) for habitat / biodiversity focused restoration. The sort of opportunities available are detailed in publications such as the RSPB's leaflet: Minerals Restoration Potential and in their Habitat creation handbook for the minerals industry. But there are also a wide range of other spatial opportunities for mineral site reclamation / restoration.</p> <p><b>MPO12b</b></p> <p>Preferred Option MPO12b seeks to introduce a policy link between mineral restoration and support for delivering key spatial priorities for the county. It will look to establish a core policy principle within the MCS with a commitment to</p> | <p>Restoration Policy</p> <p><b>SA Findings</b></p> <p>The SA findings for the three Proposed Policies relating to restoration are presented in Appendix 5 and Chapter 5 of this SA Report.</p> |

| Minerals Core Strategy Issues & Options (2005-2007)                                                                                                                     | Minerals Core Strategy Preferred Options (2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Minerals Local Plan Site Options and Draft Policy Framework Consultation Document (June 2014)                                                     |
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|                                                                                                                                                                         | <p>produce more detailed guidance in the future. This may take the form of a Supplementary Planning Document (SPD); a dedicated section within a Mineral Site Allocations document; or form part of a wider spatial document such as an Area Action Plan (AAP).</p> <p><b>SA Findings for MPO12b</b> (as presented in the 2008 Preferred Options SA Non-technical Summary)</p> <p>In the test against the SA Objectives this option is broadly positive and less uncertain in the longer term than MPO12a. Major positive scores are indicated in terms of the promotion of sustainable development / communities / providing homes and the restoration of minerals sites (in the short to medium term). There are no significant negative effects indicated at this level of assessment. In terms of SA Objective 13 – the restoration of minerals sites, major positive effects are indicated in the medium to long term (a higher score than MPO12A) due to the fact that there is a greater degree of flexibility – the spatial priorities are not set in the Core Strategy but are introduced through Supplementary Planning Documents, Area Action Plans or the Mineral Site Allocations DPD.</p> |                                                                                                                                                   |
| <b>Protecting local communities</b>                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                   |
| <b>ISSUE M7. Meeting Objective 5: Securing enforceable, sound working practices that minimise the adverse impacts of mineral developments on the local communities,</b> | <p><b>The Preferred Option for People was: MPO11</b></p> <p>Preferred Option MPO11 proposes a strategic</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <p>A number of the Proposed Policies in Section 6 of the 2014 MLP Consultation Document relate indirectly to protection of local communities:</p> |



| Minerals Core Strategy Issues & Options (2005-2007)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Minerals Core Strategy Preferred Options (2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Minerals Local Plan Site Options and Draft Policy Framework Consultation Document (June 2014)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| <p><b>the local economy and environment of Gloucestershire</b></p> <p><b>(Option 1): <u>Business as usual</u></b> Retain existing policies for protecting local communities as set out in the Minerals Local Plan.</p> <p>In terms of the SA test of this option at the Issues &amp; Options stage, the results were broadly positive but with some genuine areas of uncertainty identified. <b>Parts of the option were dropped</b> in that an overarching strategic amenity policy was proposed for the MCS.</p> <p><b>(Option 2):</b> Revise policies for protecting local communities to include new factors such as cumulative impact and greater community involvement.</p> <p>In the Issues &amp; Options SA test the results were broadly very positive.</p> <p><b>(Option 3): <u>Business as usual</u></b> Retain Settlement Protection Boundaries in the Upper Thames Valley.</p> <p>In the Issues &amp; Options SA test the results for this option were broadly neutral.</p> <p><b>(Option 4):</b> Remove Settlement Protection Boundaries in the Upper Thames Valley.</p> <p>In the Issues &amp; Options SA test the results for this option were that there were a number of potentially negative impacts likely in terms of tourist assets, health and amenity protection.</p> <p><b>Appropriate parts of Options 2, 3 and 4 were carried forward into the Preferred</b></p> | <p>amenity policy, which looks to highlight the importance and local amenity impacts within the policy framework set by the MCS. It will ensure that amenity is carefully considered by future mineral proposals and as part of the assessment process for future site allocations. It will also seek to provide a locational context to local amenity by signposting key areas in the county where local amenity safeguarding will likely be an issue in the future.</p> <p><b>SA Findings for MPO11</b> (as presented in the 2008 Preferred Options SA Non-technical Summary)</p> <p>In the test against the SA Objectives this option is broadly positive or neutral. There are no significant negative impacts anticipated and major positive effects are envisaged in terms of Promoting sustainable communities, protecting health and well-being, protecting amenity and reducing adverse impacts of lorry traffic.</p> | <ul style="list-style-type: none"> <li>• Proposed Policy for Flood Risk</li> <li>• Proposed Policy for Water Quality</li> <li>• Proposed Landscape Policy</li> <li>• Proposed policy for Mineral Working in the Green Belt</li> <li>• Proposed Policy for Biodiversity &amp; Geodiversity</li> <li>• Proposed Policy for the Historic Environment</li> <li>• Proposed Development Management Criteria for the Historic Environment.</li> <li>• Proposed Policy for Sustainable Transport</li> </ul> <p>There are also the following proposed development management policies in Section 8 of the MLP Consultation Document that seek to protect local amenity (those in <i>italics</i> are not relevant):</p> <ul style="list-style-type: none"> <li>• Proposed Policy for Mitigation of Environmental Effects</li> <li>• <i>Proposed Policy for Ancillary Development</i></li> <li>• <i>Proposed Policy for Safeguarding Aerodromes</i></li> <li>• Proposed Policy for Planning Obligations</li> <li>• Proposed Policy for Borrow Pits</li> <li>• Proposed Policy for Cumulative Impact</li> <li>• <i>Proposed Policy for Soils</i></li> <li>• Proposed Policy for Public Rights of Way</li> </ul> |

| Minerals Core Strategy Issues & Options (2005-2007)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Minerals Core Strategy Preferred Options (2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Minerals Local Plan Site Options and Draft Policy Framework Consultation Document (June 2014)                                                                                                                                                                                                                                                                                                                                   |
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| <p><b>Options.</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <ul style="list-style-type: none"> <li>Proposed Policy for Buffer Zones</li> </ul> <p><b>SA Findings</b></p> <p>The SA findings for the all of the above Proposed Policies relating to protection of local amenity are presented in Appendix 5 and Chapter 5 of this SA Report.</p>                                                                                                                                             |
| <p><b>Efficient working of minerals</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <p><b>ISSUE M8. Meeting Objective 6: Encouraging the Efficient Working of Mineral Resources</b></p> <p><b>(Option 1):</b> <u>Business as usual</u> Retain the existing policy in the Minerals Local Plan that encourages the efficient use of minerals.</p> <p>In the Issues &amp; Options SA test positive effects were envisaged against all SA Objectives.</p> <p><b>(Option 2):</b> Adopt regional targets to assist with monitoring of the efficient use of minerals.</p> <p>The Issues &amp; Options SA indicated that in the short to medium term the results were similar to Option 1 but that there were uncertainties in the longer term.</p> <p><b>(Option 3):</b> Consider alternative strategies to ensure the efficient use of minerals, including the greater integration of minerals and waste core strategy policies.</p> <p>The Issues &amp; Options SA indicated that positive / major positive effects could be anticipated and no negative impacts were indicated.</p> <p><b>These options were effectively integrated</b></p> | <p><b>The Preferred Option for efficient working of minerals was:</b></p> <p><b>MPO9 Reuse and Recycling</b></p> <p>Preferred Option MPO9 looks to support a consistent and joined-up policy approach for the re-use and recycling of construction &amp; demolition (C&amp;D) wastes within Gloucestershire. It seeks to achieve this by following the locational strategy of the County's evolving Waste Core Strategy (WCS). However, in recognition of the potential opportunity to 'add value' at existing mineral sites, the preferred option also seeks to support ancillary recycling of materials, where there is sufficient environmental capacity to do so and where the wider spatial objectives of the substantive minerals operation, are not be compromised.</p> <p><b>SA Findings for MPO9</b> (as presented in the 2008 Preferred Options SA Non-technical Summary)</p> <p>This option scores very well against the SA Objectives. The volume of C&amp;D waste produced each year in Gloucestershire is significant</p> | <p>There is one Strategic Policy Aim regarding secondary and recycled aggregates in Section 4 the 2014 MLP Consultation Document:</p> <ul style="list-style-type: none"> <li>Strategic Policy Aim for Alternative Aggregates.</li> </ul> <p><b>SA Findings</b></p> <p>The SA findings for the Strategic Policy Aim regarding secondary and recycled aggregates are presented in Appendix 5 and Chapter 5 of this SA Report.</p> |

| Minerals Core Strategy Issues & Options (2005-2007)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Minerals Core Strategy Preferred Options (2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Minerals Local Plan Site Options and Draft Policy Framework Consultation Document (June 2014)                                                                                                                                                                                                                                                                                                                                   |
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| <b>where possible and carried forward into the Preferred Options.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | (relative to other waste streams – See the Waste Core Strategy Preferred Options paper and related Waste Technical Evidence Papers for more details) and this policy seeks to put this 'waste' to better use. There are no significant negative impacts anticipated and positive / major positive effects are given against 11 or the 15 objectives. There are uncertain impacts in terms of reducing adverse lorry impacts on communities and the environment. This is due to the fact that, as already happens in Gloucestershire, C&D waste may be transported to peripheral quarries in the county for processing. But back-hauling could reduce these impacts.                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Maximising recycled materials</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <p><b>ISSUE M9. Meeting Objective 7: Promoting the Maximum Use of Recycled Materials in Preference to non-Renewable Primary Minerals, where possible</b></p> <p><b>(Option 1):</b> <u>Business as usual</u> Retain the Minerals Local Plan policy encouraging the use of recycled minerals to substitute for primary minerals.</p> <p>In the Issues &amp; Options SA test this option was broadly positive. However <b>the option was dropped</b> as RSS and MPS1 provided more detailed policy on delivering secondary and recycled aggregates.</p> <p><b>(Option 2):</b> Revise the policy approach by improving policy linkages with the Waste Core</p> | <p><b>As above, the Preferred Option for efficient working of minerals was:</b></p> <p><b>MPO9 Reuse and Recycling</b></p> <p>Preferred Option MPO9 looks to support a consistent and joined-up policy approach for the re-use and recycling of construction and demolition (C&amp;D) wastes within Gloucestershire. It seeks to achieve this by following the locational strategy of the County's evolving Waste Core Strategy (WCS). However, in recognition of the potential opportunity to 'add value' at existing mineral sites, the preferred option also seeks to support ancillary recycling of materials, where there is sufficient environmental capacity to do so and where the wider spatial objectives of the substantive</p> | <p>There is one Strategic Policy Aim regarding secondary and recycled aggregates in Section 4 the 2014 MLP Consultation Document:</p> <ul style="list-style-type: none"> <li>Strategic Policy Aim for Alternative Aggregates.</li> </ul> <p><b>SA Findings</b></p> <p>The SA findings for the Strategic Policy Aim regarding secondary and recycled aggregates are presented in Appendix 5 and Chapter 5 of this SA Report.</p> |

| Minerals Core Strategy Issues & Options (2005-2007)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Minerals Core Strategy Preferred Options (2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Minerals Local Plan Site Options and Draft Policy Framework Consultation Document (June 2014)                                                                                                                                                                                                                                                                                         |
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| <p>Strategy.</p> <p>In the Issues &amp; Options SA test this option was considered to be positive to major positive in terms of its effects. <b>This option was effectively carried forward into the Preferred Options.</b></p> <p><b>(Option 3):</b> Revise the policy approach to incorporate new regional targets.</p> <p>In the Issues &amp; Options SA test this option was considered broadly positive in the short to medium term but with some longer term uncertainties. <b>This option was effectively carried forward into the Preferred Options.</b></p>                                                                                                                                                                                                                        | <p>minerals operation, are not be compromised.</p> <p><b>SA Findings for MPO9</b> (as presented in the 2008 Preferred Options SA Non-technical Summary)</p> <p>As described in the row above.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Sustainable transport</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                       |
| <p><b>ISSUE M10. Meeting Objective 8: Encouraging More Sustainable Ways of Transporting Minerals Other Than by Road</b></p> <p><b>(Option 1):</b> <u>Business as usual</u> Retain the policy to encourage the most sustainable mode of transport for the movement of minerals.</p> <p>In the Issues &amp; Options SA test this option was considered to be broadly positive or neutral. <b>The option was dropped</b> as the RSS and MPS1 provided more detailed policy on delivering sustainable transport for freight.</p> <p><b>(Option 2):</b> Revise the current policy approach to reflect emerging regional policy concerning freight routing hierarchy for road haulage.</p> <p>In the Issues &amp; Options SA test the likely effects were broadly positive and major positive</p> | <p><b>The Preferred Option for Sustainable Transport was:</b></p> <p><b>MPO14 Transport</b></p> <p>Preferred option MPO14 proposes an overarching policy principle, which will look to support sustainable forms of transporting minerals – such as rail, sea and water, ahead of road haulage. However, where road transport represents the only viable option, priority will be given to mineral movements that utilise regional ‘fit for purpose’ haulage routes, where it is most practicable and of least environmental impact to do so. The regional routes designated within Gloucestershire will be clearly identified in the MCS.</p> <p>In terms of increased sustainable transport</p> | <p>There is one Proposed Policies in Section 6 of the 2014 MLP Consultation Document relating to sustainable transport:</p> <ul style="list-style-type: none"> <li>Proposed Policy for Sustainable Transport</li> </ul> <p><b>SA Findings</b></p> <p>The SA findings for the Sustainable Transport Proposed Policies are presented in Appendix 5 and Chapter 5 of this SA Report.</p> |

| Minerals Core Strategy Issues & Options (2005-2007)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Minerals Core Strategy Preferred Options (2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Minerals Local Plan Site Options and Draft Policy Framework Consultation Document (June 2014) |
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| <p>for the majority of the SA Objectives (better scoring than Option 1). <b>This option was effectively carried forward into the Preferred Options.</b></p> <p><b>(Option 3):</b> <u>Business as usual</u> Retain the policy principles as set out in the MLP for safeguarding non-road transport infrastructure.</p> <p>In the Issues &amp; Options SA test the likely effects were broadly positive and major positive for the majority of the SA Objectives but <b>the option was dropped</b> due to the RSS and MPS1 providing more detailed policy on delivering sustainable transport infrastructure. Particular note was given to the potential allocation of sites for rail heads, wharfage and associated storage facilities.</p> <p><b>(Option 4):</b> The identification of sites which could facilitate the non-road transport of minerals now or in the future.</p> <p>Again, in the Issues &amp; Options SA test the likely effects were broadly positive and major positive for the majority of the SA Objectives, with no negative impacts envisaged. <b>This option was effectively carried forward into the Preferred Options.</b></p> | <p>infrastructure, preferred option MPO14 will look to expand its local capacity for handling minerals. It will aim to achieve this through safeguarding existing railheads; rail depots; wharfage and inland waterways; and associated land, which could facilitate future expansion through regeneration initiatives, from other development. Spatial opportunities for more sustainable minerals transport in future will also be looked upon in the context of the spatial strategy and in particular as a factor in determining future provision requirements for minerals.</p> <p><b>SA Findings for MPO14</b> (as presented in the 2008 Preferred Options SA Non-technical Summary)</p> <p>In any minerals development, transport issues are generally significant. In terms of the SA Objectives the option scores well – as would be expected given that it is promoting more sustainable forms of minerals transportation. No significant negative impacts are anticipated and major positive scores are given in terms of broad sustainable development / communities, safeguarding sites (this includes railheads and wharfage), protecting health, safeguarding of local amenity, pollution prevention, reducing transportation impacts and reducing contributions to climate change.</p> |                                                                                               |
| <b>Joint working and minerals</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                               |
| <b>ISSUE M11. Meeting Objective 9: Promoting Closer Working with</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | The joint working options were not carried forward into a specific Preferred Option, but                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Again, the joint working options were not carried forward into a specific proposed policy     |

| Minerals Core Strategy Issues & Options (2005-2007)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Minerals Core Strategy Preferred Options (2008)                                                                                                                                                                                                                                                                                                                   | Minerals Local Plan Site Options and Draft Policy Framework Consultation Document (June 2014)                                          |
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| <p><b>Neighbouring Authorities to Develop a Consistent Policy Approach for the Future Working of Strategic Mineral Resources</b></p> <p><b>(Option 1):</b> <u>Business as usual</u> Continuation of the current officer-led joint working approach.</p> <p>In the Issues &amp; Options SA test the likely effects were broadly positive with major positive effects against a number of the SA Objectives.</p> <p><b>(Option 2):</b> A more formal approach to joint working in the Upper Thames Valley supporting a greater degree of consistency in future mineral policies.</p> <p>In the Issues &amp; Options SA test the likely effects were broadly positive with some uncertainties in the longer term.</p> <p><b>Both these options were effectively carried forward indirectly into a number of the Preferred Options as discussed in the next column.</b></p> | <p>were indirectly addressed through <b>Section 7 'Provision and Supply'</b> (Preferred options 3a-3c, 4a-4c, and 5a and 5b) <b>and Section 11 'Reclamation'</b> (Preferred options MPO12a and MPO12b).</p> <p>These options and the SA findings are summarised above under the <b>Provision for Aggregates</b> and <b>Restoration of mineral sites</b> rows.</p> | <p>in the 2014 MLP Consultation Document.</p>                                                                                          |
| SEA and SA for the MCS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                        |
| <p><b>ISSUE M12. Strategic Environmental Assessment (SEA) and Sustainability Appraisal (SA)</b></p> <p><b>Q12. In line with government guidance this Issues and Options paper has been subjected to a sustainability appraisal that examines its likely social, environmental and economic impacts.</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <p><b>SA/SEA</b> – no need for options to test at this stage. SA/SEA is being undertaken at each stage in the MCS/MLP development.</p>                                                                                                                                                                                                                            | <p><b>SA/SEA</b> – no need for options to test at this stage. SA/SEA is being undertaken at each stage in the MCS/MLP development.</p> |

| Minerals Core Strategy Issues & Options<br>(2005-2007)                                                                                                          | Minerals Core Strategy Preferred Options<br>(2008)                                | Minerals Local Plan Site Options and Draft<br>Policy Framework Consultation Document<br>(June 2014) |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| <b>Other issues</b>                                                                                                                                             |                                                                                   |                                                                                                     |
| <b>ISSUE M13. Other issues?</b><br><b>Q13. Are there any other issues/options<br/>that this paper has not raised that you<br/>consider should be addressed?</b> | <b>Other issues</b> – no other issues were identified<br>to assess at this stage. | <b>Other issues</b> – no other issues were identified<br>to assess at this stage.                   |

## **Appendix 3**

### Review of relevant plans, policies and programmes



| INTERNATIONAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                   |                                                                                                                  |
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| EU SEA DIRECTIVE 2001 (2001/42/EC)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                   |                                                                                                                  |
| KEY OBJECTIVES RELEVANT TO PLAN AND SA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA                                                                                                                                                                                                                                                                                                                                                                                                                           | IMPLICATIONS FOR PLAN                                                                                                                                                                                                                                                                             | IMPLICATIONS FOR SA                                                                                              |
| Provides for a high level of protection of the environment and contributes to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development.                                                                                                                                                                                                                                                                                           | The Directive must be applied to plans or programmes whose formal preparation begins after 21 July 2004 and to those already in preparation by that date.                                                                                                                                                                                                                                                                                                                    | Develop policies that take account of the Directive as well as more detailed policies derived from the Directive at the national level.                                                                                                                                                           | Requirements of the SEA Directive must be met in Sustainability Appraisals.                                      |
| THE WORLD SUMMIT ON SUSTAINABLE DEVELOPMENT – JOHANNESBURG 2002 – COMMITMENTS ARISING FROM THE SUMMIT                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                   |                                                                                                                  |
| KEY OBJECTIVES RELEVANT TO PLAN AND SA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA                                                                                                                                                                                                                                                                                                                                                                                                                           | IMPLICATIONS FOR PLAN                                                                                                                                                                                                                                                                             | IMPLICATIONS FOR SA                                                                                              |
| <ul style="list-style-type: none"> <li>• Sustainable consumption and production patterns.</li> <li>• Accelerate shift towards sustainable consumption and production – 10 year framework of programmes of action.</li> </ul> <p>Reverse trend in loss of natural Resources.</p> <ul style="list-style-type: none"> <li>• Renewable Energy and Energy Efficiency.</li> <li>• Urgently and substantially increase Global share of renewable energy.</li> <li>• Significantly reduce the rate of biodiversity loss by 2010.</li> </ul> | <p>No targets or indicators, however actions include:</p> <ul style="list-style-type: none"> <li>• Greater resource efficiency.</li> <li>• Support business innovation and take up of best practice in technology and management.</li> <li>• Sustainable consumer consumption and procurement.</li> <li>• Creating a level playing field for renewable energy and energy efficiency.</li> <li>• New technology development.</li> <li>• Push on energy efficiency.</li> </ul> | <p>The MLP should encourage greater efficiency of resources.</p> <p>Plans should acknowledge the importance of protecting biodiversity. They should consider the maintenance of good air quality, the measures that can be taken to improve it and encouragement to reduce vehicle movements.</p> | <p>The SA should include objectives that broadly cover the action areas. Greater resource efficiency is key.</p> |
| EU AIR QUALITY FRAMEWORK DIRECTIVES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                   |                                                                                                                  |
| KEY OBJECTIVES RELEVANT TO PLAN AND SA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA                                                                                                                                                                                                                                                                                                                                                                                                                           | IMPLICATIONS FOR PLAN                                                                                                                                                                                                                                                                             | IMPLICATIONS FOR SA                                                                                              |
| The 6th EAP identifies four priority areas:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | No relevant key targets.                                                                                                                                                                                                                                                                                                                                                                                                                                                     | The MLP should consider its relationship with the priority areas.                                                                                                                                                                                                                                 | The SA should consider its relationship with the priority areas.                                                 |

| <ul style="list-style-type: none"> <li>• Climate Change</li> <li>• Nature and Biodiversity</li> <li>• Environment and Health</li> <li>• Natural Resources &amp; Waste.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                    |                                                                                                                                         | •                                                                                                               |
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| EU SEVENTH ENVIRONMENTAL ACTION PLAN TO 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                    |                                                                                                                                         |                                                                                                                 |
| KEY OBJECTIVES RELEVANT TO PLAN AND SA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA | IMPLICATIONS FOR PLAN                                                                                                                   | IMPLICATIONS FOR SA                                                                                             |
| <p>The EU's objectives in implementing the programme are:</p> <ul style="list-style-type: none"> <li>• to protect, conserve and enhance the Union's natural capital;</li> <li>• to turn the Union into a resource-efficient, green and competitive low-carbon economy;</li> <li>• to safeguard the Union's citizens from environment-related pressures and risks to health and wellbeing;</li> <li>• to maximise the benefits of the Union's environment legislation;</li> <li>• to improve the evidence base for environment policy;</li> <li>• to secure investment for environment and climate policy and get the prices right;</li> <li>• to improve environmental integration and policy coherence;</li> <li>• to enhance the sustainability of the Union's cities;</li> <li>• to increase the Union's</li> </ul> | No targets or indicators.                          | Develop policies that take account of the Directive as well as more detailed policies derived from the Directive contained in the NPPF. | Include sustainability objectives to protect and enhance the natural environment and promote energy efficiency. |

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| effectiveness in confronting regional and global environmental challenges.                                                                                                                                  |                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                           |
| <b>EU DRINKING WATER DIRECTIVE (98/83/EC)</b>                                                                                                                                                               |                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                           |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                               | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b>                                                                                                                                                         | <b>IMPLICATIONS FOR PLAN</b>                                                                                                                                                                                                                                                                                                                                                                      | <b>IMPLICATIONS FOR SA</b>                                                                                                                                                                                                                                                                                                                |
| Provide for the quality of drinking water throughout the EU.                                                                                                                                                | The standards in the Directive are legally binding.                                                                                                                                                               | Plans should clearly recognise that minerals development can impact upon drinking water quality and should include policy measures to protect these resources.                                                                                                                                                                                                                                    | The SA Framework should consider water quality.                                                                                                                                                                                                                                                                                           |
| <b>EU WATER FRAMEWORK DIRECTIVE (2000/60/EC)</b>                                                                                                                                                            |                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                           |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                               | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b>                                                                                                                                                         | <b>IMPLICATIONS FOR PLAN</b>                                                                                                                                                                                                                                                                                                                                                                      | <b>IMPLICATIONS FOR SA</b>                                                                                                                                                                                                                                                                                                                |
| The WFD sets a framework for the long-term sustainable management of water resources. It establishes a river catchment structure for the management of all inland and coastal waters including groundwater. | <p>All rivers must be of 'good' quality by 2015, although this has yet to be defined.</p> <p>EA publishes substantial information on river quality.</p> <p>Develop trend or target indicators based on these.</p> | <p>Include policies which promote water quality in line with the Directive.</p> <p>Many of the objectives will be achieved through River Basin Management Plans.</p> <p>Give consideration to the water needs of wetland areas.</p> <p>Through the plan - promote the protection of Natura 2000 sites.</p> <p>Consider that wetland creation(after-use) may impose obligations under the WFD.</p> | <p>Check to ensure that the objectives of the Framework Directive are reflected in the SA Framework – The conservation and protection of groundwater, rivers and lakes in the county and bordering catchments needs to be included in the assessment of objectives.</p> <p>Consider specific objectives for the Cotswolds Water Park.</p> |
| <b>EU BATHING WATER QUALITY DIRECTIVE (2006/7/EC)</b>                                                                                                                                                       |                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                           |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                               | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b>                                                                                                                                                         | <b>IMPLICATIONS FOR PLAN</b>                                                                                                                                                                                                                                                                                                                                                                      | <b>IMPLICATIONS FOR SA</b>                                                                                                                                                                                                                                                                                                                |

| The revised Bathing Water Directive entered into force in March 2006. The overall objective of the revised Directive remains the protection of public health whilst bathing.                                                                                                                                                                                                                                                                                                                                                                                                                                             | There is a requirement for all bathing waters to be classed as 'sufficient' by 2015.                                                                                                               | Plan must adhere to the requirements of the Directive, as appropriate. | Sustainability objectives should reflect the Directive requirements and protect the quality of bathing waters.                                                              |
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| EU BIODIVERSITY STRATEGY TO 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                    |                                                                        |                                                                                                                                                                             |
| KEY OBJECTIVES RELEVANT TO PLAN AND SA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA                                                                                                                                                 | IMPLICATIONS FOR PLAN                                                  | IMPLICATIONS FOR SA                                                                                                                                                         |
| <p>The European Commission has adopted an ambitious new strategy to halt the loss of biodiversity and ecosystem services in the EU by 2020.</p> <p>The six targets cover:</p> <ul style="list-style-type: none"> <li>• Full implementation of EU nature legislation to protect biodiversity</li> <li>• Better protection for ecosystems, and more use of green infrastructure</li> <li>• More sustainable agriculture and forestry</li> <li>• Better management of fish stocks</li> <li>• Tighter controls on invasive alien species</li> <li>• A bigger EU contribution to averting global biodiversity loss</li> </ul> | <p>Biodiversity loss is an enormous challenge in the EU, with around one in four species currently threatened with extinction and 88% of fish stocks over-exploited or significantly depleted.</p> | <p>Include policies that protect biodiversity.</p>                     | <ul style="list-style-type: none"> <li>• Check to ensure that the requirements of the strategy is covered in the SA Framework objectives and appraisal criteria.</li> </ul> |

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| <b>EU BIRDS AND HABITATS DIRECTIVE I.E. BIRDS DIRECTIVE (2009/147/EC) AND EU DIRECTIVE ON THE CONSERVATION OF NATURAL HABITATS AND OF WILD FAUNA AND FLORA (92/43/EEC) BIRDS DIRECTIVE (2009/147/EC))</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                           |                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b> | <b>IMPLICATIONS FOR PLAN</b>                                                                                                                                                                                                                                                                                                                                                | <b>IMPLICATIONS FOR SA</b>                                                                                                                                                     |
| <p>EC Directive 92/43/EEC, known as The Habitats Directive aims to conserve fauna, flora and natural habitats of EU importance. The fundamental purpose of this directive is to establish a network of protected areas throughout the Community designed to maintain both the distribution and the abundance of threatened species and habitats, both terrestrial and marine. The Directive complements the EU Directive on the Birds Directive. The network of Special Areas of Conservation (SAC) and Special Protection Areas (SPAs) is called Natura 2000.</p> <p>The Conservation (Natural Habitats &amp; c.) Regulations 1994 (known as the Habitats Regulations) implement the Habitats Directive and the Birds Directive. These make it an offence deliberately to kill, capture, or disturb a European Protected Species, or to damage or destroy the breeding site or resting place of such an animal. The Habitats Regulations require the review of outstanding decisions, permissions, consents and other authorisations which would be likely to have a</p> | No relevant key targets.                                  | <p>The MPA should be aware of the locations of SPAs and SACs and take this into account during any site selection and area of search activity.</p> <p>The plan should also ensure that provision is made for undertaking 'appropriate assessments' where required.</p> <p>The MPA should be aware of the presence of European Protected Species within Gloucestershire.</p> | <ul style="list-style-type: none"> <li>Check to ensure that the requirements of the Directive(s) are covered in the SA Framework objectives and appraisal criteria.</li> </ul> |

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| <p>significant effect on a European Site. If as a result of an application there is 'likely to be a significant effect' on the designated features of the SAC (this could include impacts from activities not within the boundaries of the SAC and the cumulative effect of several separate applications) then the planning authority must obtain an 'Appropriate Assessment' of the application and its likely effect.</p> <p>Local authorities should be aware of the presence of European Protected Species and their obligations to afford them protection.</p>                          |                                                           |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                 |
| <b>EU DIRECTIVE ON THE MANAGEMENT OF WASTE FROM THE EXTRACTIVE INDUSTRIES (2006/21/EC)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                           |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                 |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b> | <b>IMPLICATIONS FOR PLAN</b>                                                                                                                     | <b>IMPLICATIONS FOR SA</b>                                                                                                                                                                                                                                                                                                      |
| <p>The purpose of the Directive is to prevent water and soil pollution from the deposition of waste into heaps or ponds and puts emphasis on the long-term stability of waste facilities to help avoid major accidents, such as the pollution of the Danube river caused by a cyanide spill, following a damburst of a tailings pond in Baia Mare/Romania in 2000. The Directive is not yet finalised. It is likely to be agreed in the second half of 2005. Member States would therefore have to transpose the EU legislation by the end of 2007.</p> <p>The main elements of the Draft</p> | No relevant key targets.                                  | Plans should clearly recognise that some minerals development can cause pollution and harm human health where they produce dangerous substances. | <p>The Directive encourages recycling and the prudent use of natural resources and the protection of the environment. It aims for a reduction in water and soil pollution. The SA Framework should include objectives that reflect the tenor of the proposed Directive.</p> <ul style="list-style-type: none"> <li>•</li> </ul> |

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| <p>Directive are:</p> <ul style="list-style-type: none"> <li>• Conditions for operating permits.</li> <li>• General obligations concerning waste management.</li> <li>• The obligation to characterise waste before disposing of it or treating it.</li> <li>• Measures to ensure the safety of waste management facilities.</li> <li>• A requirement to draw up closure plans.</li> <li>• An obligation to provide for an appropriate level of financial security ("polluter pays" principle).</li> </ul> |                                                           |                                                                                                              |                                                                                         |
| <b>EU WASTE FRAMEWORK DIRECTIVE (2008/98/EC)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                           |                                                                                                              |                                                                                         |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b> | <b>IMPLICATIONS FOR PLAN</b>                                                                                 | <b>IMPLICATIONS FOR SA</b>                                                              |
| This Directive establishes a legal framework for the treatment of waste <sup>*</sup> within the Community. It aims at protecting the environment and human health through the prevention of the harmful effects of waste generation and waste management.                                                                                                                                                                                                                                                  | No key targets.                                           | The waste hierarchy is encouraging the reduction in the use of landfills, which has an impact upon minerals. | The SA should consider the impacts of the policy on mineral planning.                   |
| <b>IPCC'S FOURTH ASSESSMENT REPORT ON CLIMATE CHANGE (2007)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                           |                                                                                                              |                                                                                         |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b> | <b>IMPLICATIONS FOR PLAN</b>                                                                                 | <b>IMPLICATIONS FOR SA</b>                                                              |
| To limit and/or reduce all greenhouse gas emissions which contribute to climate change.                                                                                                                                                                                                                                                                                                                                                                                                                    | None                                                      | Plan should support reduction in emissions of greenhouse gases.                                              | Consider inclusion of objectives to support reduction in emissions of greenhouse gases. |

| NATIONAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                      |
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| NATIONAL PLANNING POLICY FRAMEWORK (NPPF)                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                      |
| KEY OBJECTIVES RELEVANT TO PLAN AND SA                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA                                                                                                                                       | IMPLICATIONS FOR PLAN                                                                                                                                                                                                                                                                             | IMPLICATIONS FOR SA                                                                                                                                                                                                  |
| <p>The National Planning Policy Framework sets out the Government's planning policies for England and how these are expected to be applied, including for minerals</p> <p>The purpose of the planning system is to contribute to the achievement of sustainable development – economic, social and environmental.</p>                                                                                                                                                                                              | No key target.                                                                                                                                                                           | Policies in the plan need to consider the NPPF.                                                                                                                                                                                                                                                   | Include sustainability objectives within the SA Framework that address the policy requirements of the guidance.                                                                                                      |
| PLANNING FOR FREIGHT ON INLAND WATERWAYS (DFT / DEFRA APRIL 2004)                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                      |
| KEY OBJECTIVES RELEVANT TO PLAN AND SA                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA                                                                                                                                       | IMPLICATIONS FOR PLAN                                                                                                                                                                                                                                                                             | IMPLICATIONS FOR SA                                                                                                                                                                                                  |
| <p>The Government wants to encourage more freight to travel by water instead of by road.</p> <p>The 4 Waterway Categories are:</p> <ul style="list-style-type: none"> <li>• Estuaries &amp; tidal rivers</li> <li>• Large non-tidal waterways</li> <li>• Broad waterways</li> <li>• Narrow canals</li> </ul> <p><u>Aggregates</u></p> <p>Currently sand, gravel and stone form the greatest volume of freight currently transported on inland waterways in the UK.</p> <p>Related to the above, there are also</p> | No specific targets, but clear encouragement to move certain types of freight off the roads and make the best use of use of water transport and to preserve and increase wharf capacity. | <p>Consider how the plan can best utilise the water transport options available in Gloucestershire, e.g. the River Severn, and the Gloucester – Sharpness Canal.</p> <p>Consider how the plan can safeguard existing wharfs and promote additional capacity in line with Government guidance.</p> | Ensure that the SA Framework fully considers the issue of sustainable transport modes other than by road. The SA Objectives or sub-objectives should reference canal use and the safeguarding / expansion of wharfs. |



| objectives to safeguard and utilise existing wharf capacity and also to add to it.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                    |                                                                                          |                                                                                                                                                         |
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| DEFRA NATURAL ENVIRONMENT AND RURAL COMMUNITIES ACT 2006 – SECTION 41: LIST OF HABITATS AND SPECIES OF PRINCIPAL IMPORTANCE IN ENGLAND 2008                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                    |                                                                                          |                                                                                                                                                         |
| KEY OBJECTIVES RELEVANT TO PLAN AND SA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA                                                                                                                                                                                                                 | IMPLICATIONS FOR PLAN                                                                    | IMPLICATIONS FOR SA                                                                                                                                     |
| <p>The lists have been prepared by the Secretary of State for Environment, Food and Rural Affairs as required under section 41(1) of the Natural Environment and Rural Communities (NERC) Act 2006. They identify the living organisms (species) and types of habitat which the Secretary of State considers are of principal importance for the purpose of conserving biodiversity in England. In accordance with section 41(2) of the NERC Act, the Secretary of State has consulted Natural England on the species and habitats to be included on the list.</p> <p>Under section 41(3) of the NERC Act the Secretary of State must take steps (where they are reasonably practicable), and promote the taking of steps by others, to further the conservation of the habitats and species on the list. In light of this duty, seven sectors have been identified where actions taken by public bodies and other stakeholders could deliver significant conservation benefits for</p> | <p>The extensive lists of habitats and species are available on the DEFRA website at:</p> <p><a href="http://www.defra.gov.uk/wildlife-countryside/biodiversity/sect41-nerc.htm">http://www.defra.gov.uk/wildlife-countryside/biodiversity/sect41-nerc.htm</a></p> | <p>The plan should further the conservation of the habitats and species on the list.</p> | <p>The SA Framework and particularly the SA Objectives and sub-objectives focusing on biodiversity should reflect the requirements of the NERC Act.</p> |

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| habitats and species on the list.                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                |                                                                  |                                                                               |
| <b>THE CONSERVATION OF HABITATS AND SPECIES REGULATIONS 2010 (AS AMENDED)</b>                                                                                                                                                                                                                                                                                                                                                                       |                                                                                |                                                                  |                                                                               |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                       | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b>                      | <b>IMPLICATIONS FOR PLAN</b>                                     | <b>IMPLICATIONS FOR SA</b>                                                    |
| The Regulations provide for the designation and protection of 'European sites', the protection of 'European protected species', and the adaptation of planning and other controls for the protection of European Sites.                                                                                                                                                                                                                             | No targets or indicators specifically, or directly relevant to minerals plans. | Consider how the plan can contribute to meeting the regulations. | Include sustainability objectives relating to protection of European sites.   |
| <b>BIODIVERSITY 2020 – A STRATEGY FOR ENGLAND'S WILDLIFE AND ECOSYSTEM SERVICES</b>                                                                                                                                                                                                                                                                                                                                                                 |                                                                                |                                                                  |                                                                               |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                       | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b>                      | <b>IMPLICATIONS FOR PLAN</b>                                     | <b>IMPLICATIONS FOR SA</b>                                                    |
| <p>Sets out how the quality of our environment on land and at sea will be improved over the next ten years.</p> <p>The strategy has focused on four main themes:</p> <ul style="list-style-type: none"> <li>• A more integrated large-scale approach to conservation on land and at sea.</li> <li>• Putting people at the heart of biodiversity policy.</li> <li>• Reducing environmental pressures.</li> <li>• Improving our knowledge.</li> </ul> | No targets or indicators specifically, or directly relevant to minerals plans. | Consider how the plan can contribute to meeting the strategy.    | Include sustainability objectives relating to the quality of the environment. |

| <p><b>The Strategy includes the following priorities:</b></p> <ul style="list-style-type: none"> <li>• Creating 200,000 hectares of new wildlife habitats by 2020 – this is equivalent to an area the size of Warwickshire</li> <li>• Securing 50% of SSSIs in favourable condition, while maintaining at least 95% in favourable or recovering condition</li> <li>• Trialling new approaches to setting fishing quotas to reduce discards</li> <li>• Encouraging more people to get involved in conservation by supporting wildlife gardening and outdoor learning programmes</li> <li>• Introducing a new designation for local green spaces to enable communities to protect places that are important to them</li> </ul> |                                                           |                                                                                                                 |                                                                                                   |
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| <b>NATURAL ENVIRONMENT WHITE PAPER (2011)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                           |                                                                                                                 |                                                                                                   |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b> | <b>IMPLICATIONS FOR PLAN</b>                                                                                    | <b>IMPLICATIONS FOR SA</b>                                                                        |
| <p>The White paper contains 92 commitments related to the natural environment under several themes including the following:</p> <p>Protecting and improving our natural</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <p>No targets or indicators.</p>                          | <p>Protect the intrinsic value of nature and recognise the multiple benefits it could have for communities.</p> | <p>Include a sustainability objective relating to the enhancement of the natural environment.</p> |

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| environment;<br>Growing a green economy; and<br>Reconnecting people and nature.                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                   |                                                                                     |                                                                                                     |
| <b>SECURING THE FUTURE: DELIVERING UK SUSTAINABLE DEVELOPMENT STRATEGY (2011)</b>                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                   |                                                                                     |                                                                                                     |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b>                                                                                                                                                         | <b>IMPLICATIONS FOR PLAN</b>                                                        | <b>IMPLICATIONS FOR SA</b>                                                                          |
| <p>Enable all people throughout the world to satisfy their basic needs and enjoy a better quality of life without compromising the quality of life for future generations. There are 4 shared priorities:</p> <ul style="list-style-type: none"> <li>• sustainable consumption and production;</li> <li>• climate change and energy;</li> <li>• natural resource protection and environmental enhancement; and</li> <li>• sustainable communities.</li> </ul> | <p>Sets out indicators to give an overview of sustainable development and priority areas in the UK. They include 20 of the UK Framework indicators and a further 48 indicators related to the priority areas.</p> | <p>Develop policies that meet the aims of the Sustainable Development Strategy.</p> | <p>Include sustainability objectives to cover the shared priorities of sustainable development.</p> |
| <b>THE AIR QUALITY STRATEGY FOR ENGLAND, SCOTLAND, WALES AND NORTHERN IRELAND (2007)</b>                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                   |                                                                                     |                                                                                                     |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b>                                                                                                                                                         | <b>IMPLICATIONS FOR PLAN</b>                                                        | <b>IMPLICATIONS FOR SA</b>                                                                          |
| <p>Make sure that everyone can enjoy a level of ambient air quality in public spaces, which poses no significant risk to health or quality of life.</p> <p>Render polluting emissions harmless.</p>                                                                                                                                                                                                                                                           | <p>Sets air quality standards for 13 air pollutants.</p>                                                                                                                                                          | <p>Develop policies that aim to meet the standards.</p>                             | <p>Include sustainability objectives to reduce pollution and protect and improve air quality.</p>   |
| <b>THE UK LOW CARBON TRANSITION PLAN (2009)</b>                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                   |                                                                                     |                                                                                                     |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b>                                                                                                                                                         | <b>IMPLICATIONS FOR PLAN</b>                                                        | <b>IMPLICATIONS FOR SA</b>                                                                          |

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| Plan plots how the UK will meet the 34 percent cut in emissions on 1990 levels by 2020. The Plan shows how reductions in the power sector and heavy industry; transport; homes and communities; workplaces and jobs; and farming, land and waste sectors could enable carbon budgets to 2022 to be met.                                                                                                                              | <p>The plan includes a 5-point Action Plan covering the following areas:</p> <ul style="list-style-type: none"> <li>Protecting the public from immediate risk;</li> <li>Preparing for the future;</li> <li>Limiting the severity of future climate change through a new international climate agreement;</li> <li>Building a low carbon UK;</li> </ul> <p>Supporting individuals, communities and businesses to play their part.</p> | Plan should include policies that contribute towards achieving lower carbon emissions.                                                                                                                                                 | Objectives should reflect the aims set in the UK Low Carbon Transition Plan to reduce carbon emissions.                                                                                                                                 |
| <b>THE CARBON PLAN: DELIVERY OUR LOW CARBON FUTURE (2011)</b>                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                         |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                        | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                            | <b>IMPLICATIONS FOR PLAN</b>                                                                                                                                                                                                           | <b>IMPLICATIONS FOR SA</b>                                                                                                                                                                                                              |
| The Carbon Plan is a Government wide plan of action on climate change, including domestic and international activity.                                                                                                                                                                                                                                                                                                                | The plan includes a range of sectoral plans and targets including low carbon industry.                                                                                                                                                                                                                                                                                                                                               | Plan should include policies that contribute towards achieving lower carbon emissions.                                                                                                                                                 | Objectives should reflect the aims set in the Plan.                                                                                                                                                                                     |
| <b>A STRATEGY FOR ENGLAND'S TREES, WOODS AND FORESTS (2007)</b>                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                         |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                        | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                            | <b>IMPLICATIONS FOR PLAN</b>                                                                                                                                                                                                           | <b>IMPLICATIONS FOR SA</b>                                                                                                                                                                                                              |
| <p>To provide, in England, a resource of trees, woods and forests in places where they can contribute most in terms of environmental, economic and social benefit now and for future generations;</p> <p>Ensure that existing and newly planted trees, woods and forests are resilient to the impacts of climate change and also contribute to the way in which biodiversity and natural resources adjust to a changing climate.</p> | <p>The strategy identifies some possible indicators including:</p> <p>Proportion of woodland Sites of Special Scientific Interest (SSSIs) in favourable condition;</p> <p>Woodland bird indicator – bird population associated with woodland;</p> <p>Access to and use of woodland;</p> <p>Trends in all plants and ancient woodland indicator plants.</p>                                                                           | <p>Plan should to promote the sustainable management of our existing woods and forests.</p> <p>Plan should, where appropriate, seek a steady expansion of woodland areas to provide more benefits for society and our environment.</p> | <p>Consider inclusion of objectives to promote sustainable management of our existing woods and forests.</p> <p>Consider inclusion of objectives which aim to promote the expansion, enjoyment and understanding of woodland areas.</p> |

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| <p>Protect and enhance the environmental resources of water, soil, air, biodiversity and landscapes (both woodland and non-woodland), and the cultural and amenity values of trees and woodland.</p> <p>Increase the contribution that trees, woods and forests make to the quality of life for those living in, working in or visiting England.</p> <p>Improve the competitiveness of woodland businesses and promote the development of new or improved markets for sustainable woodland products and ecosystem services where this will deliver identifiable public benefits, nationally or locally, including the reduction of carbon emissions.</p> |                                                                                                 |                                                                                               |                                                                                                                                                                                  |
| <b>THE SUSTAINABLE COMMUNITIES PLAN (2003) FOCUSING ON: SUSTAINABLE COMMUNITIES IN THE SOUTH WEST</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                 |                                                                                               |                                                                                                                                                                                  |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b>                                       | <b>IMPLICATIONS FOR PLAN</b>                                                                  | <b>IMPLICATIONS FOR SA</b>                                                                                                                                                       |
| <p>The plan does not cover all issues of importance to communities but it does address:</p> <ul style="list-style-type: none"> <li>▪ Housing</li> <li>▪ Planning and neighbourhood renewal issues</li> <li>▪ Transport.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                       | <p>No targets or indicators specifically, or directly relevant to minerals and waste plans.</p> | <p>Consider how the plan can contribute to the broad objectives and aims of the strategy.</p> | <ul style="list-style-type: none"> <li>• Include sustainability objectives that aim to build 'sustainable communities' in line with the Sustainable Communities Plan.</li> </ul> |
| <b>NATIONAL TRAILS PUBLICATION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                 |                                                                                               |                                                                                                                                                                                  |

| KEY OBJECTIVES RELEVANT TO PLAN AND SA                                                                                                                                                                                                                                                                                                                    | KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA                                                                                                    | IMPLICATIONS FOR PLAN                                                                                                                                                            | IMPLICATIONS FOR SA                                                                                                                                                          |
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| This leaflet published by the Countryside Agency in 2005 details 15 of the most popular National Trails in the England and Wales. National Trails pass through some of the most stunning and diverse landscapes in Britain. Of particular relevance to Gloucestershire is the Cotswold Way Natural Trail and the Thames Path and Ridgeway National Trail. | No targets or indicators specifically, or directly relevant to minerals and waste plans.                                                              | Consider how the plan can protect those National Trails upon which it may have an impact.                                                                                        | <ul style="list-style-type: none"> <li>Consider rights of way issues, the enjoyment of the countryside and the protection of National Trails in the SA Framework.</li> </ul> |
| <b>A DEVELOPMENT PLAN FOR MARINE AGGREGATE EXTRACTION IN ENGLAND – A SCOPING STUDY</b>                                                                                                                                                                                                                                                                    |                                                                                                                                                       |                                                                                                                                                                                  |                                                                                                                                                                              |
| KEY OBJECTIVES RELEVANT TO PLAN AND SA                                                                                                                                                                                                                                                                                                                    | KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA                                                                                                    | IMPLICATIONS FOR PLAN                                                                                                                                                            | IMPLICATIONS FOR SA                                                                                                                                                          |
| <p>A recommendation for:</p> <ul style="list-style-type: none"> <li>A national scale plan for marine minerals.</li> <li>A clear national framework of policies.</li> <li>A strong regional element in regional chapters.</li> </ul>                                                                                                                       | Providing for an appropriate amount of dredging from marine areas so that they make their full contribution to sustainable aggregates supply overall. | <p>Relates to:</p> <p>Minerals Core Strategy</p> <p>Minerals Site Allocations</p> <p>Consider how plans can appropriately consider the sustainable use of marine aggregates.</p> | Include sustainability objectives relating to the sustainable use of marine aggregate extraction.                                                                            |
| <b>UNDERGROUND, UNDER THREAT – GROUNDWATER PROTECTION: POLICY AND PRACTICE</b>                                                                                                                                                                                                                                                                            |                                                                                                                                                       |                                                                                                                                                                                  |                                                                                                                                                                              |
| KEY OBJECTIVES RELEVANT TO PLAN AND SA                                                                                                                                                                                                                                                                                                                    | KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA                                                                                                    | IMPLICATIONS FOR PLAN                                                                                                                                                            | IMPLICATIONS FOR SA                                                                                                                                                          |
| To prevent pollution of groundwater.                                                                                                                                                                                                                                                                                                                      | To meet Water Framework Directive requirements for groundwater quality.                                                                               | Plan should recognise the importance and vulnerability of groundwater resources and ensure that they are not detrimentally                                                       | Include an objective to protect groundwater quality.                                                                                                                         |

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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                | affected by waste development.                                                                                    |                                                                                                                                                                                                                  |
| <b>FLOOD AND WATER MANAGEMENT ACT 2010</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                |                                                                                                                   |                                                                                                                                                                                                                  |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b>                                                                                      | <b>IMPLICATIONS FOR PLAN</b>                                                                                      | <b>IMPLICATIONS FOR SA</b>                                                                                                                                                                                       |
| <p>To improve the management of flood risk for people, homes and businesses.</p> <p>To protect water supplies.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <p>Local Authorities to prepare flood risk assessments, flood maps and plans.</p> <p>EA to prepare Local flood risk management strategies.</p> | <p>Plan should take account of flooding and water management issues and strategies.</p>                           | <p>Consider inclusion of objective to reduce flood risk and other impacts on the water environment.</p>                                                                                                          |
| <b>WESSEX WATER RESOURCES DRAFT MANAGEMENT PLAN</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                |                                                                                                                   |                                                                                                                                                                                                                  |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b>                                                                                      | <b>IMPLICATIONS FOR PLAN</b>                                                                                      | <b>IMPLICATIONS FOR SA</b>                                                                                                                                                                                       |
| <p>To improve the water supply network to guarantee the security of supply in the event of source failure, to help overcome low river flow problems and to provide alternative supplies when some sources are affected by elevated nitrate levels.</p> <p>To move progressively towards metering when a property changes hands, accompanied by tariffs aimed at encouraging sustainable use and protecting those in 'water poverty'.</p> <p>Communicating more clearly how customers can be more efficient in their use of water and offering additional services to promote water efficient behaviour.</p> <p>Protecting the quality of our water</p> | <p>No specific targets or indicators that are directly relevant.</p>                                                                           | <p>Consider the needs and requirements of all licensed water suppliers and statutory waste water undertakers.</p> | <ul style="list-style-type: none"> <li>The SA should contain objectives protecting water supplies and water bodies from pollution, promoting the efficient and sustainable management of waste water.</li> </ul> |



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| supplies by working with farmers and encouraging the Environment Agency to make full use of their powers to protect groundwater.                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                         |                                                                                                                   |                                                                                                                                               |
| <b>THAMES WATER RESOURCES MANAGEMENT PLAN</b>                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                         |                                                                                                                   |                                                                                                                                               |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b>                                                                                                                               | <b>IMPLICATIONS FOR PLAN</b>                                                                                      | <b>IMPLICATIONS FOR SA</b>                                                                                                                    |
| <p>Further significant reductions in leakage resulting in the reduction in leakage by a third by 2020.</p> <p>A ten year programme of targeted compulsory metering.</p> <p>An enhanced water efficiency programme.</p> <p>An integrated Demand Management (IDM) approach to planning and delivery.</p> <p>Development of key schemes including Upper Thames Major Resource Development in 2021/22.</p> <p>The development of 'what if' analysis and contingency options.</p> | <p>Reduction in leakage by one third by 2020 followed by further reductions.</p> <p>Household meter penetration of around 80% by 2020 and the metering of all connected properties.</p> | <p>Consider the needs and requirements of all licensed water suppliers and statutory waste water undertakers.</p> | <ul style="list-style-type: none"> <li>The SA should contain objectives protecting water supplies and water bodies from pollution.</li> </ul> |
| <b>SEVERN TRENT WATER DRAFT RESOURCES MANAGEMENT PLAN</b>                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                         |                                                                                                                   |                                                                                                                                               |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b>                                                                                                                               | <b>IMPLICATIONS FOR PLAN</b>                                                                                      | <b>IMPLICATIONS FOR SA</b>                                                                                                                    |

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| <ul style="list-style-type: none"> <li>▪ Meet statutory obligations as a licensed water supply and waste water undertaker.</li> <li>▪ Comply with environmental legislation and meet environmental obligations.</li> <li>▪ Adopt the overall least financial, social and environmental cost strategy for achieving and maintaining target headroom throughout the planning period to 2035.</li> <li>▪ Continue to promote and expand water efficiency programmes and water reuse options.</li> <li>▪ Accelerate the installation of water meters and more sophisticated tariffs.</li> <li>▪ Continue to drive down the level of leakage from the network.</li> <li>▪ Reinforce the network to avoid interruptions to supply.</li> <li>▪ Design and maintain water resource and supply systems to achieve no more than three hosepipe bans in 100 years.</li> <li>▪ Increase the scope for water transfers across our own region and between water companies.</li> <li>▪ Develop new sustainable water resources when needed.</li> </ul> | <p>None specifically relevant to the MCS.</p> | <p>Consider the needs and requirements of all licensed water suppliers and statutory waste water undertakers.</p> | <ul style="list-style-type: none"> <li>• The SA should contain objectives protecting water supplies and water bodies from pollution and promote the efficient and sustainable management of waste water.</li> </ul> |
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| <ul style="list-style-type: none"> <li>• Ensure no failures in treated water quality outside the standards that are set.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                      |                                                                                                                   |                                                                                                                                                                        |
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| DRAFT WELSH WATER MANAGEMENT PLAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                      |                                                                                                                   |                                                                                                                                                                        |
| KEY OBJECTIVES RELEVANT TO PLAN AND SA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA                   | IMPLICATIONS FOR PLAN                                                                                             | IMPLICATIONS FOR SA                                                                                                                                                    |
| <p>This Plan is aligned to their current policy position detailed in the document, 'Our Sustainable Future', and with their forthcoming Environment Strategy. Key aspects are:</p> <p>Looking after our assets - Our priorities to the milestone year 2015 include....providing robust infrastructure to enable continued economic growth and development in Wales.</p> <p>Responding to climate change - We will implement changes to our business activities to cope with extreme weather events....through Water Resources Plans and enhanced protection of our key assets. Over the next 25 years....our vision is that customers should be able to look forward to....at least a 50% cut in greenhouse gas emissions.</p> <p>Safeguarding the environment - protected areas will not be adversely affected by our water abstractions.</p> <p>Meeting customers' expectations -</p> | <p>No specific targets or indicators that are directly relevant.</p> | <p>Consider the needs and requirements of all licensed water suppliers and statutory waste water undertakers.</p> | <p>The SA should contain objectives protecting water supplies and water bodies from pollution and promote the efficient and sustainable management of waste water.</p> |

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| Our Water Resources Plans will be based on a hosepipe ban not occurring at a rate of more than once in every 20 years.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                               |                                                                                                            |                                                                                                                                                                 |
| <b>DRAFT BRISTOL WATER RESOURCES MANAGEMENT PLAN</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                               |                                                                                                            |                                                                                                                                                                 |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b>     | <b>IMPLICATIONS FOR PLAN</b>                                                                               | <b>IMPLICATIONS FOR SA</b>                                                                                                                                      |
| <p>Improving network water efficiency.</p> <p>Helping customers reduce their demand for water.</p> <p>Developing existing and additional sources of water.</p> <p>Investigating opportunities for bulk supplies from other companies.</p> <p>Maintain security of water supply at current levels.</p> <p>Provide environmental assets that help to reduce overall greenhouse gas emissions.</p> <p>Help customers become aware of water use and water efficiency.</p> <p>Improve our own water efficiency by large leakage reductions.</p> <p>Deliver a fairer way to pay for water through metering.</p> | No specific targets or indicators that are directly relevant. | Consider the needs and requirements of all licensed water suppliers and statutory waste water undertakers. | The SA should contain objectives protecting water supplies and water bodies from pollution and promote the efficient and sustainable management of waste water. |

| SEVERN RIVER BASIN MANAGEMENT PLAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                               |                                                                                   |                                                                                                    |
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| KEY OBJECTIVES RELEVANT TO PLAN AND SA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA                                                                            | IMPLICATIONS FOR PLAN                                                             | IMPLICATIONS FOR SA                                                                                |
| <p>By 2015, 17 per cent of surface waters (rivers, lakes, estuaries) in this river basin district are going to improve for at least one biological, chemical or physical element.</p> <p>34 per cent of surface waters will be at good or better ecological status/potential.</p> <p>65 per cent of groundwater bodies will be at good status by 2015.</p> <p>In combination 35 per cent of all water bodies will be at good or better status by 2015.</p> <p>At least 38 per cent of assessed surface waters will be at good or better biological status by 2015.</p> | <p>The biological parts of how the water environment is assessed – the plant and animal communities – are key indicators.</p> | <p>Consider the protection of water supplies and water bodies from pollution.</p> | <p>The SA should contain objectives protecting water supplies and water bodies from pollution.</p> |
| THAMES RIVER BASIN MANAGEMENT PLAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                               |                                                                                   |                                                                                                    |
| KEY OBJECTIVES RELEVANT TO PLAN AND SA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA                                                                            | IMPLICATIONS FOR PLAN                                                             | IMPLICATIONS FOR SA                                                                                |
| <p>By 2015, 22 per cent of surface waters (rivers, lakes estuaries and coastal waters) are going to improve for at least one biological, chemical or physical element</p> <p>25 per cent of surface waters will be at good or better ecological status and</p>                                                                                                                                                                                                                                                                                                         | <p>The biological parts of how the water environment is assessed – the plant and animal communities – are key indicators.</p> | <p>Consider the protection of water supplies and water bodies from pollution.</p> | <p>The SA should contain objectives protecting water supplies and water bodies from pollution.</p> |

| <p>17 per cent of groundwater bodies will be at good overall status by 2015.</p> <p>In combination, 25 per cent of all water bodies will be at good or better status by 2015.</p> <p>At least 30 per cent of assessed surface waters will be at good or better biological quality by 2015.</p>                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                    |                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                   |
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| PLANNING FOR THE SUPPLY OF NATURAL BUILDING AND ROOFING STONE IN ENGLAND AND WALES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                    |                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                   |
| KEY OBJECTIVES RELEVANT TO PLAN AND SA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA | IMPLICATIONS FOR PLAN                                                                                                                                                                                                                                                                                               | IMPLICATIONS FOR SA                                                                                                                                                                                                               |
| <p>This report describes the nature and significance of the building and roofing stone industry in England and Wales and its relationship to planning and development.</p> <p>The report highlights the fact that there is demand for natural stone products in three main areas:</p> <ul style="list-style-type: none"> <li>• Repair and maintenance to historic buildings and structures using materials from original or compatible sources.</li> <li>• Maintaining vernacular styles in new construction, using materials that are compatible with traditional local building practices.</li> <li>• Contemporary design requirements for new buildings and structures, including internal and external</li> </ul> | <p>No key targets.</p>                             | <p>Consider policies in the plan that support the continuing use of natural building stone – where there is demonstrated need.</p> <p>Consider the potential implications for waste minimisation in this sector in that ‘building stone production necessarily involves a relatively high proportion of waste’.</p> | <ul style="list-style-type: none"> <li>• Include sustainability objectives in the SA Framework that aim to provide for the demand for natural stone products, balanced against environmental and other considerations.</li> </ul> |

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| <p>decoration.</p> <p>The report concludes that there is a need to protect areas of designated interest and value, to prevent the unnecessary sterilisation of resources and also 'the need for positive action to encourage the continued operation of existing and new building stone quarries by minimising the burden placed upon them by the planning system as far as possible.</p>                                                                                                                                                                                                                                         |                                                                                                                                                                |                                                                                         |                                                                                          |
| <b>COLLATION OF THE 2009 AGGREGATE MINERALS SURVEY FOR ENGLAND AND WALES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                |                                                                                         |                                                                                          |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b>                                                                                                      | <b>IMPLICATIONS FOR PLAN</b>                                                            | <b>IMPLICATIONS FOR SA</b>                                                               |
| <p>The report provides comprehensive information for monitoring and facilitating aggregates provision at local, regional and national level.</p> <p>Aggregate Minerals (AM) surveys, based at four-yearly intervals since 1973, provide an in depth and up-to-date understanding of regional and national sales, inter-regional flows, transportation, consumption and permitted reserves of primary aggregates. The Aggregate Minerals 2009 survey report also presents data on the movement and consumption of primary aggregates by subregion. Information is also presented on the quantity of aggregate minerals granted</p> | <p>No targets, but there are a number of significant indicators for example The South West (15.2 Mt) was the largest producer of limestone for aggregates.</p> | <p>Develop appropriate and sustainable policies in the light of the survey results.</p> | <ul style="list-style-type: none"> <li>Consider the results of the AM Survey.</li> </ul> |

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| and refused planning permission and, for the first time, planning permission applications withdrawn or awaiting a decision, between 2006 and 2009, by site type and environmental designation.                                                                                                                                                                                                                                                                                                                                                                   |                                                                               |                                                                     |                                                                                                             |
| <b>CLIMATE CHANGE ACT 2008</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                               |                                                                     |                                                                                                             |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b>                     | <b>IMPLICATIONS FOR PLAN</b>                                        | <b>IMPLICATIONS FOR SA</b>                                                                                  |
| <p>The purpose of the act is to provide a legally binding long-term framework to cut carbon emissions to ensure the UK meets its commitments to tackle climate change.</p> <p>The main elements of the Act are:</p> <ul style="list-style-type: none"> <li>• Reducing emissions by 80% by 2050 compared to 1990 levels.</li> <li>• Production of a Climate Change Risk Assessment every 5 years.</li> <li>• A national adaption programme which will be reviewed every 5 years which will address the most pressing climate change issues in England.</li> </ul> | National target of reducing emissions by 80% by 2050 compared to 1990 levels. | Consider how the plan can help to contribute to reducing emissions. | <p>Ensure the issue of climate change is addressed.</p> <ul style="list-style-type: none"> <li>•</li> </ul> |
| <b>MINERALS EXTRACTION AND THE HISTORIC ENVIRONMENT</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                               |                                                                     |                                                                                                             |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>KEY TARGETS AND INDICATORS</b>                                             | <b>IMPLICATIONS FOR PLAN</b>                                        | <b>IMPLICATIONS FOR SA</b>                                                                                  |



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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>RELEVANT TO PLAN AND SA</b>                            |                                                                                                                    |                                                                                                                |
| <p>The document sets out English Heritage's position on mineral extraction and the high-level policies that will form the basis for responses and views put forward by English Heritage on any matter relating to the winning, working and safeguarding of minerals. Although it was produced before the NPPF English Heritage consider the document and a majority of the contents are still relevant. Its principal purpose is to guide the work of English Heritage, but it will also be of interest to the wider historic environment sector, government, local authorities, the minerals industry and other organisations that care for the environment.</p> <p>The document sets out English Heritage's formal policy on mineral extraction, including:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Sustainability and supply</li> <li><input type="checkbox"/> Safeguarding the industry's heritage</li> <li><input type="checkbox"/> Impacts and mitigating of current and future extraction</li> <li><input type="checkbox"/> Maintaining historic fabric and local distinctiveness</li> </ul> | No key targets (as yet).                                  | Ensure English Heritage's formal policy on mineral extraction is taken into account in the development of the MLP. | <p>Consider the impacts upon the historic environment.</p> <ul style="list-style-type: none"> <li>•</li> </ul> |
| <b>MINERALS EXTRACTION AND ARCHAEOLOGY: A PRACTICE GUIDE 2008</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                           |                                                                                                                    |                                                                                                                |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b> | <b>IMPLICATIONS FOR PLAN</b>                                                                                       | <b>IMPLICATIONS FOR SA</b>                                                                                     |
| The document provides guidance specifically for dealing with archaeological remains as part of mineral development through the planning process. Although it was produced before the NPPF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | No key targets (as yet).                                  | Ensure the best practice is taken into account in the development of the LDF.                                      | <p>Consider the impacts upon archaeology.</p> <ul style="list-style-type: none"> <li>•</li> </ul>              |

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| <p>English Heritage consider the document and a majority of the contents are still relevant. The principal purpose of this Practice Guide is to provide clear and practical guidance on the archaeological evaluation of mineral development sites. The guide seeks to ensure that:</p> <ul style="list-style-type: none"> <li>□ the best-informed decisions are made regarding the level of archaeological knowledge needed at each stage of the planning process</li> <li>□ the use of the full range of up to date and appropriate investigative techniques is considered</li> <li>□ there is consistency in planning authority responses, proportionate to the archaeological potential of the site and reasonable in all other respects.</li> </ul> |                                                           |                                                                                                                             |                                                      |
| <b>GUIDANCE ON THE MANAGED AGGREGATE SUPPLY SYSTEM</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                           |                                                                                                                             |                                                      |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b> | <b>IMPLICATIONS FOR PLAN</b>                                                                                                | <b>IMPLICATIONS FOR SA</b>                           |
| <p>The Managed Aggregate Supply System has provided the mechanism to deliver long term planning for the supply of aggregates, based on sound evidence. It has also served to proactively manage the rate of primary extraction, by placing added emphasis on the need to meet demand from other sources – including secondary and recycled materials and marine dredged aggregates.</p>                                                                                                                                                                                                                                                                                                                                                                  | No Key Targets                                            | <p>There is a requirement to produce a Local Aggregate Assessment. This will contribute towards figures within the MLP.</p> | <p>Consider the impacts on the mineral resource.</p> |
| <b>REGIONAL</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                           |                                                                                                                             |                                                      |

| SOUTH WEST NATURE MAP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                             |                                                                                                          |                                                                                                                      |
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| KEY OBJECTIVES RELEVANT TO PLAN AND SA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA                                                                                                                                                                                                                                                                          | IMPLICATIONS FOR PLAN                                                                                    | IMPLICATIONS FOR SA                                                                                                  |
| <p>To identify where most of the major biodiversity concentrations are found and where targets to maintain, restore and re-create wildlife might best be met.</p> <p>To formulate sustainable choices for development, e.g. through Local Development Frameworks and the Regional Spatial Strategy.</p> <p>To assist in targeting the new Environmental Stewardship Scheme.</p> <p>To develop partnerships and projects for biodiversity in the region.</p> <p>To provide a focus for projects that will help biodiversity to adapt to climate change.</p> | <p>No specific relevant targets but aims to prevent further biodiversity losses, re-establish lost wildlife and enable it to adapt to the pressures of climate change. The Map shows the best areas to maintain and expand (through restoration and/or re-creation) terrestrial wildlife habitats at a landscape scale.</p> | <p>See Gloucestershire Nature Map.</p>                                                                   | <p>See Gloucestershire Nature Map.</p>                                                                               |
| COUNTY AND LOCAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                             |                                                                                                          |                                                                                                                      |
| GLOUCESTERSHIRE STRATEGIC FLOOD RISK ASSESSMENT FOR MINERALS & WASTE DEVELOPMENT FRAMEWORK (SEPTEMBER 2008)                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                             |                                                                                                          |                                                                                                                      |
| KEY OBJECTIVES RELEVANT TO PLAN AND SA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA                                                                                                                                                                                                                                                                          | IMPLICATIONS FOR PLAN                                                                                    | IMPLICATIONS FOR SA                                                                                                  |
| <p>The purpose of the SFRA is to:</p> <ul style="list-style-type: none"> <li>inform the SA so that flood risk is</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                | <p>No specific targets.</p>                                                                                                                                                                                                                                                                                                 | <p>Carefully consider the implications of the SFRA in terms of the development of strategic policies</p> | <p>The SA process should facilitate the assessment of flood risk from all sources of flooding as detailed in the</p> |

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| <p>taken into account when considering options in the preparation of strategic land use policies.</p> <ul style="list-style-type: none"> <li>▪ Propose appropriate policy recommendations for the management of flood risk within Local Development Documents (LDDs).</li> <li>▪ Determine the acceptability of flood risk in relation to emergency planning capability.</li> <li>▪ Identify the level of detail required for future site-specific Flood Risk Assessments (FRAs) that support planning applications.</li> </ul> |                                                           | <p>and site allocations. Guide development to the areas of lowest flood risk. Guidance is provided within the NPPF.</p> <p>The EA have stated that the SFRA is 'a fundamental document for assessing strategic waste sites...'</p> | SFRA.                                                                                                                      |
| <b>GLOUCESTERSHIRE LANDSCAPE CHARACTER ASSESSMENT</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                           |                                                                                                                                                                                                                                    |                                                                                                                            |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b> | <b>IMPLICATIONS FOR PLAN</b>                                                                                                                                                                                                       | <b>IMPLICATIONS FOR SA</b>                                                                                                 |
| <p>In October 2004 Gloucestershire County Council in association with the 6 Districts appointed consultants to undertake a Landscape Character Assessment (LCA) of:</p> <ul style="list-style-type: none"> <li>▪ The Severn Vale</li> <li>▪ The Upper Thames Valley</li> <li>▪ The Vale of Moreton</li> <li>▪ The Vale of Evesham Fringe</li> </ul>                                                                                                                                                                             | No relevant key targets.                                  | <p>The plan should contain policies which: ensure that proposals for the location and form of mineral and waste sites are considered in light the recommendations of the Gloucestershire Landscape Character Assessment.</p>       | <p>Landscape objectives could be used as part of the SA Framework.</p> <ul style="list-style-type: none"> <li>•</li> </ul> |

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| <p>Those sections of the county for which a detailed LCA had already been completed include:</p> <ul style="list-style-type: none"> <li>• The Forest of Dean District</li> <li>• The Cotswold's AONB</li> </ul> <p>The LCA has the following objectives:</p> <ul style="list-style-type: none"> <li>• To provide an assessment of the character, distinctiveness and qualities of each of the separate study areas, including the cultural and natural heritage resources, and to identify and describe the component landscape character types and landscape character areas.</li> <li>• To summarise the key characteristics associated with each landscape type to inform the principles in respect of landscape change.</li> <li>• To promote awareness of landscape character and the importance of landscape conservation, enhancement and restoration.</li> </ul> <p>The LCA can be used in a variety of forward planning strategies, land management schemes and in planning control and it provides a widely accepted assessment of landscape character.</p> |  |  |  |
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| GLOUCESTERSHIRE NATURE MAP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                       |                                                                                                    |
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| KEY OBJECTIVES RELEVANT TO PLAN AND SA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | IMPLICATIONS FOR PLAN                                                                                                                                                                                                                 | IMPLICATIONS FOR SA                                                                                |
| <p>The Gloucestershire Nature Map is established in the emerging Regional Spatial Strategy (RSS) where a broad South West nature map identifies the best areas at a regional scale to conserve, create and connect wildlife habitats. Policy ENV4 of the RSS states that local authorities should use their nature map to show where the characteristic habitats that typify the county and support its wildlife can be enhanced, expanded and linked to help wildlife survive. It can achieve this by linking together isolated, fragmented habitat areas and this in turn creates larger, more sustainable, areas of continuous habitat.</p> | <p>The 2007 DEFRA Guidance to Local Authorities on the NERC Act s.40 duties includes the following statements and objectives:</p> <ul style="list-style-type: none"> <li>▪ <i>“Conserving biodiversity includes restoring and enhancing”</i></li> <li>▪ <i>“Strategic planning offers opportunities to identify broad locations where priorities should be given to biodiversity conservation and to establish ecological networks between existing and improved habitats”</i></li> <li>▪ <i>“Planning obligations are particularly useful when seeking to secure enhancement or mitigation outside of the application site, for example, through financial payments to ensure improved and ongoing management of nature conservation sites”</i></li> </ul> <p>The Gloucestershire Nature Map is a response to the above.</p> | <p>Plans should reflect the aims and objectives of the Gloucestershire Nature Map in terms of enhancing wildlife (where possible) and protecting habitats and species when changes e.g. climate change. threaten their existence.</p> | <p>The SA Objectives should reflect the aims and objectives of the Gloucestershire Nature Map.</p> |
| GLOUCESTERSHIRE COTSWOLDS GEODIVERSITY AUDIT & LOCAL GEODIVERSITY ACTION PLAN 2005                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                       |                                                                                                    |
| KEY OBJECTIVES RELEVANT TO PLAN AND SA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | IMPLICATIONS FOR PLAN                                                                                                                                                                                                                 | IMPLICATIONS FOR SA                                                                                |
| <p>The LGAP is intended to:</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <p>No key targets as such.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <p>Implications particularly for minerals plans and mineral working in the</p>                                                                                                                                                        | <p>The SA Framework should consider and reflect the importance</p>                                 |

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| <ul style="list-style-type: none"> <li>▪ Protect and manage the unique geodiversity of the Gloucestershire Cotswolds.</li> <li>▪ Increase understanding and awareness of geodiversity.</li> <li>▪ Promote geotourism, education and lifelong learning.</li> </ul>                                                                                                                                                                                        |                                                                                     | Cotswolds.                                                                   | geodiversity in Gloucestershire and reflect the aims of the LDAP for the Gloucestershire Cotswolds.                                     |
| <b>LOCAL AGENDA 21 STRATEGY FOR A SUSTAINABLE GLOUCESTERSHIRE</b>                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                     |                                                                              |                                                                                                                                         |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                            | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b>                           | <b>IMPLICATIONS FOR PLAN</b>                                                 | <b>IMPLICATIONS FOR SA</b>                                                                                                              |
| <p>To create communities that give people the best possible access to housing, work, education and services with the least possible travel.</p> <p>Promote the strengths of our local economy and encourage community enterprise to grow.</p> <p>Improve wildlife habitats, historic and built environment and landscape.</p> <p>Encourage renewable resources.</p> <p>Use fewer non-renewable resources and reduce waste.</p> <p>Prevent pollution.</p> | No specific targets – but there are aims to meet government sustainability targets. | Consider how the plan can contribute to the objectives of the LA21 strategy. | <ul style="list-style-type: none"> <li>• Check to ensure that the key relevant objectives are reflected in the SA Framework.</li> </ul> |

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| <p>Identify and promote local character and culture.</p> <p>Involve our community in decision-making and local action.</p> <p>Help people to make the most of themselves through education, training and advice.</p> <p>Help people to deal with problems which hold them back from a healthy and fulfilling life.</p> <p>Help people to live free from the fear of crime and poverty.</p>                                                                                                                    |                                                           |                                                                                                                                                               |                                                                                                                             |
| <b>GLOUCESTERSHIRE STRUCTURE PLAN – SECOND REVIEW – ADOPTED PLAN (1999)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                           |                                                                                                                                                               |                                                                                                                             |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b> | <b>IMPLICATIONS FOR PLAN</b>                                                                                                                                  | <b>IMPLICATIONS FOR SA</b>                                                                                                  |
| <p><u>MINERALS STRATEGY:</u></p> <p>The broad strategy embraces the principles of sustainable development and takes into account national guidance especially that given in MPG1 and MPG6.</p> <p>The strategy is as follows:</p> <ul style="list-style-type: none"> <li>• Conserve minerals resources as far as possible whilst ensuring an adequate and steady supply required to meet the essential economic and social needs of the community for minerals.</li> <li>• Ensure that any adverse</li> </ul> | <p>No key targets.</p>                                    | <p>Consider the Structure Plan as a whole but particularly the specific minerals strategies and policies within it. Consider their relevance to the plan.</p> | <p>Include sustainability objectives in the SA Framework that reflect the key objectives of the Adopted Structure Plan.</p> |



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| <p>environmental impacts of mineral operations (including the transport of minerals) are kept to an acceptable minimum; for example by encouraging sensitive working practices to minimise conflict with, and where necessary safeguard, non-mineral interests.</p> <ul style="list-style-type: none"> <li>▪ to preserve, and where possible enhance, the overall quality of the environment once extraction has ceased; for example by ensuring land is reclaimed to a beneficial afteruse.</li> <li>▪ make optimum use of minerals by minimising waste, by encouraging the recycling of material, and by encouraging their efficient use; for example, by discouraging the use of higher quality materials where lower grade materials would suffice and by ensuring that they are worked to the maximum extent possible and are not unnecessarily sterilised.</li> <li>▪ safeguard areas of internationally designated landscape or nature conservation from mineral development other than in exceptional circumstances in the public interest.</li> </ul> |                                                           |                              |                            |
| <b>GLOUCESTERSHIRE LOCAL TRANSPORT PLAN (3)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                           |                              |                            |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b> | <b>IMPLICATIONS FOR PLAN</b> | <b>IMPLICATIONS FOR SA</b> |

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| <p><u>The vision is as follows:</u></p> <p>'Providing a safe and sustainable transport network with in Gloucestershire'.</p> <p>The objectives that relate to this vision are as follows:</p> <ul style="list-style-type: none"> <li>• A Greener, Healthier County.</li> <li>• Sustainable Economic Growth.</li> <li>• A Safer Secure Transport System.</li> <li>• Good Access to Services.</li> </ul> | No relevant targets or indicators.                        | <p>The plan should consider LTP(3).</p> <p>The main consideration is to minimise the impact of minerals related freight transport on the environment and local communities.</p>                                                                                                                                      | <ul style="list-style-type: none"> <li>• Ensure that minerals and waste freight issues are covered in the SA Objectives.</li> </ul> |
| <b>THE GLOUCESTERSHIRE ECONOMIC STRATEGY 2003 - 2014</b>                                                                                                                                                                                                                                                                                                                                               |                                                           |                                                                                                                                                                                                                                                                                                                      |                                                                                                                                     |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                          | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b> | <b>IMPLICATIONS FOR PLAN</b>                                                                                                                                                                                                                                                                                         | <b>IMPLICATIONS FOR SA</b>                                                                                                          |
| <p><u>The three broad aims of the strategy are as follows:</u></p> <ul style="list-style-type: none"> <li>• To address known deficiencies and short-term problems facing the County.</li> <li>• To identify the longer term economic programme that will help achieve the vision for Gloucestershire.</li> <li>• To build on our strengths.</li> </ul>                                                 | No key targets relevant to plan or to the SA.             | <p>Consider how the plan and minerals development can contribute to the economic objectives contained within the strategy.</p> <p>Consider how to balance economic considerations alongside social and environmental ones in the interests of sustainable development.</p> <p>Encourage the use of alternative /</p> | <ul style="list-style-type: none"> <li>• Include objectives that reflect the broad aims of the economic strategy.</li> </ul>        |

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| <p><u>The 6 over-riding themes of the strategy are as follows:</u></p> <ul style="list-style-type: none"> <li>• The need to address social exclusion and equality of opportunity.</li> <li>• The desire for a more sustainable approach to development.</li> <li>• The need to encourage innovation.</li> <li>• The importance of added value.</li> <li>• The need for a pragmatic approach to environmental protection.</li> <li>• The value of partnership working.</li> </ul>        |                                                                                  | renewable fuels.                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                         |
| <b>THE RURAL ECONOMIC STRATEGY FOR GLOUCESTERSHIRE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                         |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b>                        | <b>IMPLICATIONS FOR PLAN</b>                                                                                                                                                                                                                                                                                                                                                                         | <b>IMPLICATIONS FOR SA</b>                                                              |
| <p>The strategy has 4 strategic objectives, which are as follows:</p> <p><u>Objective 1</u> - To raise business productivity in rural Gloucestershire to achieve a gradual adjustment of the proportions of employment in the current key sectors, whilst developing new sectors.</p> <p><u>Objective 2</u> - To increase economic inclusion in rural Gloucestershire to achieve a measurable increase in the lowest household incomes, particularly in the most deprived areas and</p> | <p>No key targets of particular relevance to minerals and waste development.</p> | <p>Consider how the plan can contribute to the strategic objectives of the rural strategy, for the benefit of rural Gloucestershire.</p> <p>Consider the importance of the employment generated by quarries, particularly in the Forest of Dean. But consider also the possible detrimental effect on the tourist industry which is (and may increasingly become) more important in rural areas.</p> | <p>Check to ensure that the strategic objectives are reflected in the SA Framework.</p> |

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| <p>especially in the Forest of Dean, as a result of higher wages and less unemployment, combined with an increase of affordable housing leading to a better, more prosperous quality of life in rural communities.</p> <p><u>Objective 3</u> - To strengthen rural communities in Gloucestershire through communications and partnership to achieve more cohesive, supportive and economically active rural communities with better physical and electronic access.</p> <p><u>Objective 4</u> - To realise fully the economic potential of Gloucestershire's rural environment whilst protecting the exceptional quality of the countryside for future generations.</p> <p>(Pg.16) The strategy highlights the following as future growth sectors:</p> <p>Environmental technology, including bio-fuels, <u>the recycling and reprocessing of waste</u>, renewable energy and other market leaders, which could be particularly suitable for the needs and opportunities that Gloucestershire uniquely provides.</p> <p>(Pg.14) Leisure and Tourism should sit within the economic strategy and the implications for the sector considered when other policies, such as those on transport, access or <u>waste</u></p> |  |  |  |
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| <p>management, are developed.</p> <p>(Pg.32) <u>Exploiting existing resources</u> – ‘Both the Forest of Dean and the Cotswolds are already significant sources of stone either as aggregate, gravel or for building. There are however indications that the major quarrying activities are hitting up against landscaping constraints and further expansion will be limited. An alternative is to stimulate “delving” – essentially the re-opening of small farm-based quarries that are generally more easily accommodated within the landscape.’</p> |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                           |
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| GLOUCESTERSHIRE BIODIVERSITY FRAMEWORK AND DELIVERY PLAN 2010                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                           |
| KEY OBJECTIVES RELEVANT TO PLAN AND SA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA                                                                                                                                                                                               | IMPLICATIONS FOR PLAN                                                                                                                                                                                                                                                                                                                                                                                 | IMPLICATIONS FOR SA                                                                                                                                                                                                                                                                       |
| <p>To provide clear strategic objectives and priorities, through an agreed joint work programme, for the development of the Gloucestershire Biodiversity Partnership and the implementation of the Gloucestershire Biodiversity Delivery Plan (Local Biodiversity Action Plan) during the period 2010 - 2015</p> <p>Strategic Objective 1: Enhance and protect biodiversity by preventing habitat loss and degradation to secure healthy,</p>                                                                                                          | <p>A top priority is to ensure that our remaining important wildlife areas - SSSIs, Key Wildlife Sites, non-designated areas of priority habitat, etc, - are not eroded any further and that they achieve and maintain favourable condition.</p> | <ul style="list-style-type: none"> <li>Develop policies that contribute to the protection of biodiversity within the county and specifically the protection of the identified habitats and species.</li> </ul> <p>Ensure that the biodiversity value of any site is taken into account when assessing planning permissions concerning, or restoration of, minerals and waste sites or facilities.</p> | <ul style="list-style-type: none"> <li>Ensure that the protection of the biodiversity of habitats, (balanced against the need for mineral sites and waste management facilities in the County) is fully reflected in the SA Framework's environmental objectives and criteria.</li> </ul> |

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| <p>functioning ecosystems</p> <p>Strategic Objective 2: Facilitate the adaptation of the natural environment so that it can be resilient to climate change</p> <p>Strategic Objective 3: To realise fully the true value of Gloucestershire's natural environment as a foundation for sustainable development and the health and well-being of our local communities.</p> <p>Strategic Objective 4: Develop the Gloucestershire Biodiversity Partnership so that it is financially sound, well supported and effective in delivering its work programme through enhanced joint working</p> |                                                                                                                                                                                                                |                                                                                                                                                                                                   |                                                                                                                             |
| <b>COTSWOLD WATER PARK BIODIVERSITY ACTION PLAN (2007-2016)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                |                                                                                                                                                                                                   |                                                                                                                             |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b>                                                                                                                                                      | <b>IMPLICATIONS FOR PLAN</b>                                                                                                                                                                      | <b>IMPLICATIONS FOR SA</b>                                                                                                  |
| <p>Note: This BAP replaces the 1997 – 2007 BAP above.</p> <p><u>The 50 year Vision is as follows:</u></p> <p>“The Cotswold Water Park should be a premier site for nature conservation where the requirements of industry, leisure, people and wildlife are</p>                                                                                                                                                                                                                                                                                                                            | <p>Various targets and actions under each Generic Action Plan ‘Theme’ 1 to 10.</p> <p>Various targets and actions under each of the following Habitat Action Plans (HAPs) and Species Action Plans (SAPs).</p> | <p>Consider how the plan can contribute to the vision and targets of the Action Plan - as outlined in this table.</p> <p>Consider how conflicts of interest between the minerals industry and</p> | <p>Include SA Objectives in the Framework that reflect the vision and objectives of the latest Cotswold Water Park BAP.</p> |

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| <p>successfully integrated.”</p> <p><u>The Generic Action Plan is as follows:</u></p> <ol style="list-style-type: none"> <li>1. Landscape-scale approach – The Head of the Thames Wetland Corridor.</li> <li>2. Planning. Minerals planning and Development Control.</li> <li>3. Promote and facilitate collection and availability of biological information in the CWP.</li> <li>4. Promote ecological and environmental research of priority habitats and species in the CWP.</li> <li>5. Promote the balance of sports and recreation with nature conservation. Sports and recreation is a key part of the CWP.</li> <li>6. Promote and enable land acquisition to safeguard sites of current and potential nature conservation importance.</li> <li>7. Grants &amp; Funding.</li> <li>8. Education, Advice &amp; Training.</li> <li>9. Publicity, Interpretation and Awareness-raising.</li> <li>10. Policy.</li> </ol> | <ul style="list-style-type: none"> <li>▪ HAP for Boundary Features</li> <li>▪ HAP for Built Structures</li> <li>▪ HAP for Canals</li> <li>▪ HAP for Framed Land</li> <li>▪ HAP for Fen, Marsh &amp; Reedswamp</li> <li>▪ HAP for Lowland Neutral Grassland</li> <li>▪ HAP for Sand &amp; Gravel Quarries</li> <li>▪ Habitat Statement: Bare ground &amp; early successional habitats for invertebrates</li> <li>▪ HAP for Standing Open Water</li> <li>▪ Habitat Statement: Ponds</li> <li>▪ HAP for Rivers &amp; Streams</li> <li>▪ HAP for Woodland</li> <li>▪ SAP for Barberry Carpet Moth</li> <li>▪ SAP for Bats</li> <li>▪ SAP for Bittern</li> <li>▪ SAP for Black Poplar</li> <li>▪ SAP for Breeding Waterbirds</li> <li>▪ SAP for Dragonflies &amp; Damselflies</li> <li>▪ Species Statement for Glow Worms</li> </ul> | <p>wildlife can be successfully resolved and mitigated against.</p> <p>Consider policies in the plan that protect and enhance biodiversity wherever possible.</p> |  |
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|                                                                                                                                                                                                                                                                                                                                                 | <ul style="list-style-type: none"> <li>▪ SAP for Great Crested Newts</li> <li>▪ Species Statement for Nightingale</li> <li>▪ Species Statement for Otter</li> <li>▪ Species Statement for Reed Bunting</li> <li>▪ SAP for Stoneworts</li> <li>▪ SAP for Water Voles</li> <li>▪ Species Statement for White-Clawed Crayfish</li> <li>▪ SAP for Wintering Waterbirds</li> <li>▪ SAP for Non-Native Invasive Species.</li> </ul> |                                                                                                                                                                                                                                                                                                         |                                                                                                                                                  |
| <b>COTSWOLD WATER PARK SUPPLEMENTARY PLANNING GUIDANCE</b>                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                         |                                                                                                                                                  |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                   | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                     | <b>IMPLICATIONS FOR PLAN</b>                                                                                                                                                                                                                                                                            | <b>IMPLICATIONS FOR SA</b>                                                                                                                       |
| <p>The SPG zones the Water Park (within the Cotswold District) into zones of 4 types:</p> <p>A = Quiet Zone - Development for low intensity uses</p> <p>B = Low Intensity Recreation Zone – recreational use of land and or water is acceptable in principle.</p> <p>C = Sport, Recreation and Tourism – medium to high intensity uses will</p> | No targets.                                                                                                                                                                                                                                                                                                                                                                                                                   | <p>Consider how the plan can further the aspirations of the SPG and ensure that the Water Park is made up of a successful variety of landuses.</p> <p>Consider the obvious importance of sand and gravel extraction in Zone D and the importance of varied and high quality restoration schemes and</p> | <ul style="list-style-type: none"> <li>• Check to ensure that the priorities of the SPG are reflected in the SA Framework objectives.</li> </ul> |



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| <p>normally be allowed in this zone.</p> <p>D = Agriculture and Forestry – future gravel extraction will provide the opportunity to establish new forms of landscape. The development of land in Zone D will include the restoration of land to agriculture and forestry; the creation of woodland, lakes, marsh and other dry or wetland habitats for nature conservation management. The creation of wetland areas will not be acceptable within the vicinity of RAF Fairford because of problems associated with bird-strike.</p> |                                                           | <p>programmes.</p> <p>In terms of wet-restoration, consider bird-strike issues.</p>                                                                                                                           |                                                                                                                                                                                                                                       |
| <b>PRE-SUBMISSION JOINT CORE STRATEGY – GLOUCESTER, CHELTENHAM, TEWKESBURY</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                           |                                                                                                                                                                                                               |                                                                                                                                                                                                                                       |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b> | <b>IMPLICATIONS FOR PLAN</b>                                                                                                                                                                                  | <b>IMPLICATIONS FOR SA</b>                                                                                                                                                                                                            |
| <p>The JCS was formed to produce a co-ordinated strategic development plan to show how this area will develop during the period up to 2013.</p> <p>A Pre-Submission Joint Core Strategy (April 2014) has now been agreed by each of the three Councils and will be published during summer 2014 for consultation.</p> <p><u>VISION</u></p> <p>By 2031 Gloucester City, Cheltenham Borough and Tewkesbury Borough will have continued to develop a highly attractive and accessible places in which to live, work and socialise.</p>  | <p>No relevant key targets.</p>                           | <p>Consider how the plan can contribute to the realising the vision and objectives of the JCS.</p> <p>Consider how the plan can promote sustainable development in Gloucester, Cheltenham and Tewkesbury.</p> | <p>The SA Framework should include objectives that relate to the vision and objectives of the local plan.</p> <p>Check to ensure the sustainable development objectives for the JCS are reflected in the SA framework objectives.</p> |

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| <p>The Joint Core Strategy area will be recognised nationally as enjoying a vibrant, competitive economy with increased job opportunities and a strong reputation for being an attractive place in which to invest.</p> <p>The character and identity of individual communities will have been retained while improved access to housing will have addressed the needs of young families, single people and the elderly.</p> <p>New developments will have been built to the highest possible standards of design and focused on protecting the quality and distinctiveness of each community. Established in sustainable locations, without increasing the risk of flooding, they will have been designed with sensitivity towards existing villages, towns and cities and with respect for the natural and built environment.</p> <p>As a result of a strong commitment to the housing and employment needs of the existing and growing population, all residents and businesses will benefit from the improved infrastructure, which will include roads, public transport and <u>services, and community facilities.</u></p> <p>STRATEGIC OBJECTIVES</p> <p>1 – Building a strong competitive urban economy.</p> |  |  |  |
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| <p>3 – Supporting a prosperous rural economy.</p> <p>4 – Conserving and enhancing the environment.</p> <p>5 – Delivering excellent design in new developments.</p> <p>6 – Meeting the challenges of climate change.</p> <p>7 – Promoting sustainable transport.</p> <p>8 – Delivering a wide choice of quality homes.</p> <p>9 – Promoting healthy communities.</p> <p>Sustainable development is seen as being of key importance in the Pre-Submission Joint Core Strategy, as demonstrated by Policy SD1: Presumption in Favour of Sustainable Development.</p> <p>Core Policy SD4: Sustainable Design and Construction supports the unnecessary sterilisation of mineral resources via prior extraction..”where it is practical, taking into account environmental acceptability and economic viability”.</p> |  |  |  |
| <b>GLOUCESTER LOCAL PLAN (SECOND STAGE DEPOSIT 2002)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |

| KEY OBJECTIVES RELEVANT TO PLAN AND SA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA                                                     | IMPLICATIONS FOR PLAN                                                                                                           | IMPLICATIONS FOR SA                                                                                                        |
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| <p>Sustainable development is seen as being of key importance in the Gloucester plan. Policy ST.1 states that “In assessing proposed new development the City Council will seek to optimise the economic, social, and environmental contribution of the development to the quality of life in the city”. The guiding aim of the plan is stated as being “To promote the economic, social, and environmental well-being of the city through careful husbandry of new development and by capitalising on the unique character and traditional urban form of this historic city.”</p> <p><u>References to Minerals and Waste</u></p> <p>The plan recognises the relationship between the local plan and the MLP &amp; WLP. Section 1.3 “...the Local Plan, together with the Gloucestershire Structure Plan,</p> <p>Minerals Local Plan and Waste Local Plan, will form the Development Plan for the city.”</p> <p>The need to minimize waste and work valuable mineral deposits is recognized in Sc 6.11 which deals with the</p> | <p>The plan does not specify any targets or indicators relevant to minerals and waste development.</p> | <p>Consider how the plan can promote sustainable development in Gloucester, in relation to resource use in new development.</p> | <p>Check to ensure the sustainable development objectives for Gloucester are reflected in the SA framework objectives.</p> |

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| redevelopment of Quedgeley RAF base.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                           |                                                                  |                                                                                |
| <b>GLOUCESTER CITY VISION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                           |                                                                  |                                                                                |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b> | <b>IMPLICATIONS FOR PLAN</b>                                     | <b>IMPLICATIONS FOR SA</b>                                                     |
| <p>VISION</p> <p>Gloucester will be a flourishing, modern ambitious city which all residents can enjoy.</p> <p>AIMS</p> <ul style="list-style-type: none"> <li>- A flourishing economy and City Centre which meets the needs of our residents, businesses and visitors.</li> <li>- A vibrant evening economy.</li> <li>- City which improves through regeneration and development.</li> <li>- A City where people feel safe and happy in their community.</li> <li>- A healthy City with opportunities available to all.</li> </ul> | No relevant targets                                       | Consider how the plan can contribute to realising the vision.    | The SA Framework should include objectives that relate to the vision and aims. |
| <b>TEWKESBURY BOROUGH LOCAL PLAN – SECOND PROPOSED MODIFICATIONS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                           |                                                                  |                                                                                |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b> | <b>IMPLICATIONS FOR PLAN</b>                                     | <b>IMPLICATIONS FOR SA</b>                                                     |
| <p><u>Overall Vision of the Plan</u></p> <p>The Plan's overall vision for the</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                   | No relevant key targets.                                  | Consider how the plan can contribute to the realising the vision | The SA Framework should include objectives that relate to the vision           |

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| <p>Borough is to ensure that development within the area contributes positively to creating sustainable communities. This will be achieved by directing development to locations where the mix of uses and proximity to existing facilities minimises the increase in transport demand whilst maximising residents' choice for access to the range of destinations they use in their daily lives.</p> <p><u>Key Objectives</u></p> <ul style="list-style-type: none"> <li>▪ To promote sustainable development.</li> <li>▪ To conserve and enhance the built and natural heritage of the Borough.</li> <li>▪ To stimulate an approach to new development which:</li> </ul> <p>Respects local environmental conditions in the detailed siting and design.</p> <p>Takes full account of local eco-systems and biodiversity.</p> <p>Encourages the use of renewable resources and minimises unnecessary reliance on private transport.</p> <p>Emphasises the re-use of brownfield land in sustainable locations.</p> <p><u>Supports innovative design solutions</u></p> |  | <p>and objectives of the local plan.</p> <p>Consider how the plan can encourage waste minimisation in Tewkesbury Borough.</p> | <p>and objectives of the local plan.</p> |
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| <p><u>consistent with sustainability objectives</u><br/>supports more efficient use of land and promotes mixed-use development.</p> <ul style="list-style-type: none"> <li>• To stimulate a healthy local economic base.</li> <li>• To meet the needs of residents whilst enhancing their quality of life.</li> </ul>                                                                                                                                                                                                                                                                              |                                                           |                                                                                                                               |                                                                                      |
| <b>TEWKESBURY FLOOD AND WATER MANAGEMENT SPD – DRAFT FOR CONSULTATION OCTOBER 2013</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                           |                                                                                                                               |                                                                                      |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b> | <b>IMPLICATIONS FOR PLAN</b>                                                                                                  | <b>IMPLICATIONS FOR SA</b>                                                           |
| <p>Key Objectives:</p> <ol style="list-style-type: none"> <li>1. To steer new development to areas with the lowest probability of flooding.</li> <li>2. To ensure that new development does not increase the risk of flooding either on a site or cumulatively elsewhere; and to seek betterment, where possible.</li> <li>3. To require the inclusion of Sustainable Drainage Systems (SuDS) within new developments (e.g. permeable paving, planted roofs, filter drains, swales and ponds) and provision for their long term maintenance, in order to mitigate the risk of flooding.</li> </ol> | No relevant key targets.                                  | <p>Consider how the plan can contribute to the objectives of the SPD.</p> <p>Consider how the plan can reduce flood risk.</p> | The SA Framework should include objectives that relate to the objectives of the SPD. |

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| <p>4. To ensure that development incorporates appropriate water management techniques that maintain existing hydrological conditions and avoid adverse effects upon the natural water cycle.</p> <p>5. To encourage on site storage capacity for surface water attenuation for storm events up to the 1% probability event (1 in 100 years) including allowance for climate change.</p> <p>6. Encourage the use of water efficient and recycling devices within new developments.</p>                                                    |                                                                                                                                      |                                                                                                                   |                                                                                                                                                                                                              |
| <b>STROUD DISTRICT LOCAL PLAN - REVISED DEPOSIT VERSION 2000</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                      |                                                                                                                   |                                                                                                                                                                                                              |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b>                                                                            | <b>IMPLICATIONS FOR PLAN</b>                                                                                      | <b>IMPLICATIONS FOR SA</b>                                                                                                                                                                                   |
| <p>Stroud District Local Plan seeks to be in accordance with the Government's approach to sustainable development as set out in 'A Better Quality of Life, a strategy for sustainable development in the UK' (May 1999). In this, four broad objectives are identified:</p> <ul style="list-style-type: none"> <li>• Social progress which recognises the needs of everyone.</li> <li>• Effective protection of the environment.</li> <li>• Prudent use of natural resources</li> <li>• Maintenance of high and stable levels</li> </ul> | <p>There are no relevant key targets and there is little reference to matters directly related to minerals or waste development.</p> | <p>Consider how the plan can promote sustainable development in Stroud District through appropriate policies.</p> | <ul style="list-style-type: none"> <li>• Check the wording of the sustainability objectives in the Framework to ensure that the main aims and objectives of the plan are appropriately reflected.</li> </ul> |



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| <p>of economic growth and employment.</p> <p>The Local Plan seeks to play its part in working a sustainable society in a number of ways:</p> <ul style="list-style-type: none"> <li>▪ Influencing the location of new development in order to reduce the need to travel and make provision for an integrated transport network.</li> <li>▪ Supporting and encouraging the growth of the economy to provide job opportunities.</li> <li>▪ Helping to make provision for homes for all - reducing social exclusion.</li> <li>▪ Making the best use of previously used land and property, particularly in the larger settlements of the District.</li> <li>▪ Looking at accommodating new means of producing energy especially from renewable resources.</li> <li>▪ Planning for new development that takes account of energy conservation in terms of site layouts, building design, provision for pedestrians, cyclists and public transport</li> <li>▪ Protecting and enhancing the natural and built environment giving particular</li> </ul> |  |  |  |
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| priority to those resources which are finite.                                                                                                                                                        |                                                                    |                                                                         |                                                                                                                                                   |
| <b>STROUD LOCAL DEVELOPMENT FRAMEWORK (AS OF Spring 2013)</b>                                                                                                                                        |                                                                    |                                                                         |                                                                                                                                                   |
| <b>COMPONENTS OF LDF &amp; KEY RELEVANT ISSUES</b>                                                                                                                                                   | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b>          | <b>IMPLICATIONS FOR PLAN</b>                                            | <b>IMPLICATIONS FOR SA</b>                                                                                                                        |
| <u>Core Strategy:</u><br><br>Pre-submission local plan due for consultation Summer 2013.                                                                                                             | The DPD has not progressed sufficiently - not clear at this stage. | The DPD has not progressed sufficiently - not clear at this stage.      | The DPD has not progressed sufficiently - not clear at this stage.                                                                                |
| <b>STROUD DISTRICT COMMUNITY STRATEGY</b>                                                                                                                                                            |                                                                    |                                                                         |                                                                                                                                                   |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                        | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b>          | <b>IMPLICATIONS FOR PLAN</b>                                            | <b>IMPLICATIONS FOR SA</b>                                                                                                                        |
| The main objectives are as follows:<br><br>• Improving Housing Opportunities.<br><br>To take every opportunity to maximise the supply of affordable housing units available to local people in need. | No relevant key targets.                                           | Consider how the plan can contribute to the objectives of the strategy. | <ul style="list-style-type: none"> <li>• Include sustainability objectives that reflect the main objectives of the community strategy.</li> </ul> |

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| <p>To maximise investment in the private and public housing stocks in order to encourage homeowners and landlords to make their homes decent by 2010.</p> <ul style="list-style-type: none"> <li>• Creating Wealth.</li> <li>• Access to Services and Rural</li> <li>• Transport.</li> <li>• Health and Well-Being.</li> <li>• Addressing Crime and Disorder.</li> <li>• The protection of the Cultural and Natural Environment.</li> <li>• To conserve and enhance the natural and built identity of the district. To develop a sustainable environment for both wildlife and people to live and enjoy.</li> </ul> |                                                           |                                                                           |                                                                                                                                                                |
| <b>CHELTENHAM BOROUGH LOCAL PLAN SECOND REVIEW REVISED DEPOSIT DRAFT 2004</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                           |                                                                           |                                                                                                                                                                |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b> | <b>IMPLICATIONS FOR PLAN</b>                                              | <b>IMPLICATIONS FOR SA</b>                                                                                                                                     |
| <p>Following the publication of 'A Better Quality of Life' the plan seeks:</p> <ul style="list-style-type: none"> <li>• social progress which recognises the needs of everyone.</li> <li>• effective protection of the</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                   | No key targets.                                           | Consider how the plan can contribute to Cheltenham's aims and objectives. | Check to ensure that the aims and objectives of the plan for the promotion of sustainable development in Cheltenham Borough are reflected in the SA Framework. |

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| <p>environment.</p> <ul style="list-style-type: none"> <li>• prudent use of natural resources.</li> <li>• maintenance of high and stable levels of economic growth and employment.’</li> </ul> <p><u>References to Minerals</u></p> <p>- Reusing materials wherever possible or using materials from sustainable sources.</p> <p>(Pg.70) Applications for substantial <u>mineral workings</u>, or extensions to existing workings, in AONBs should be subject</p> <p>to the most rigorous assessment of the need for the minerals and the environmental effects of the proposal.</p> |                                                                                                            |                                                                                                        |                                                                                                 |
| <b>CHELTENHAM’S COMMUNITY PLAN</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                            |                                                                                                        |                                                                                                 |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b>                                                  | <b>IMPLICATIONS FOR PLAN</b>                                                                           | <b>IMPLICATIONS FOR SA</b>                                                                      |
| <p>‘The vision for Cheltenham in the year 2020 is for it to be a vibrant, safe and sustainable town where residents, workers and visitors enjoy the benefits of social, environmental and economic wellbeing.’</p> <p>Top 20 priorities:</p>                                                                                                                                                                                                                                                                                                                                         | <p>No relevant targets but reducing waste and encouraging recycling is high on the list of priorities.</p> | <p>Consider how the plan can contribute to addressing the priority areas with Cheltenham Borough,.</p> | <p>Check to ensure that the relevant aims and objectives are reflected in the SA Framework.</p> |

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| <p>Reducing crime, the fear of crime and antisocial behaviour.</p> <p>Promoting a clean and pleasant environment.</p> <p>Protecting air and water quality and controlling noise pollution.</p> <p>Providing a quality bus service.</p> <p>Reducing inequalities in healthcare.</p> <p>Encouraging tolerance and respect.</p> <p>Providing opportunities for residents to comment on and influence decisions.</p> <p>Providing education and training opportunities.</p> <p>Protecting our architecture.</p> <p>Reducing vehicle speeds and accidents.</p> <p>Reducing accidents at work.</p> <p>Providing quick and accurate information to the public.</p> <p>Supporting local shops and businesses.</p> <p>Reducing the use of water and materials that cannot be replaced.</p> <p>Reducing the amount of energy used.</p> |  |  |  |
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| <p>Promoting good physical and mental health.</p> <p>Providing support to help people to live independently.</p> <p>Making sure all services and events are open to all.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                   |
| <b>THE FOREST OF DEAN DISTRICT CORE STRATEGY (awaiting outcome of JR)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                   |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b> | <b>IMPLICATIONS FOR PLAN</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>IMPLICATIONS FOR SA</b>                                                                                                                                        |
| <p><u>CORE STRATEGY VISION</u></p> <p>The Forest of Dean will be a thriving sustainable community with a high quality environment, a developing local economy including tourism, housing which meets the needs of residents (including affordable homes) and safer communities. The existing complementary nature of the three southern forest towns will be reinforced to ensure Coleford, Lydney and Cinderford work together with their hinterlands to provide a more sustainable future. Much of the planned change will be in the towns, especially Lydney and Cinderford, with improved shopping and services, meeting the needs of the existing and new population. Improved town centres, services and a wider range of employment will reduce commuting and other journeys. Newent will become a more effective local centre</p> | <p>No directly relevant indicators for Minerals.</p>      | <p>Consider how the plan can contribute to the Forest of Dean's nature conservation objectives.</p> <p>Address and mitigate the conflict between the MPA permitting quarrying and local district conservation objectives.</p> <p>Check to ensure that the plan balances the need for extraction and the need to protect natural resources.</p> <p>Ensure that the impact caused by extraction is balanced by restoration and nature conservation initiatives.</p> <p>Need to consider traffic impacts.</p> | <p>Check to ensure that the aims and objectives of the plan for the promotion of sustainable development in Forest of Dean are reflected in the SA Framework.</p> |

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| <p>through improvements in the centre and additional employment. The quality of the countryside and the built environment will be maintained through the careful promotion of the economy, and safeguarding of the landscape.</p> <p><u>Objectives</u></p> <p>1. Providing quality environments throughout the district- to protect the environment for the benefit of the community and in order to attract new businesses.</p> <p>2. Develop a more self contained and diverse local economy including</p> <p>tourism- to address out commuting and enable more sustainable transport patterns while providing a greater range and number of jobs, and improving the services and facilities that are accessible.</p> <p>3. Providing homes including affordable homes- to meet the housing needs of the community.</p> <p>4. Facilitate regeneration- to support a stronger more sustainable economy in a better quality environment.</p> <p>5. Creating safer communities with better facilities.</p> |                                                           |                              |                            |
| <b>COTSWOLD DISTRICT COUNCIL LOCAL PLAN (REVISED DEPOSIT 2003)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                           |                              |                            |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b> | <b>IMPLICATIONS FOR PLAN</b> | <b>IMPLICATIONS FOR SA</b> |

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| <p>The revised deposit plan gives considerable weight to sustainable development principles (as stated in Sc 1.4.2)</p> <p>The plan recognises that the natural environment of the Cotswolds district is of high value. As a result the District's natural environment and heritage are examined early in the document before dealing with development issues.</p> <p>The objectives listed in Table 1 of the plan are consistent with the broadly accepted principles of SD.</p> <p>The Local Plan (Sc11) makes specific reference to natural habitats, biodiversity etc. in the Cotswold Water Park. The park is internationally significant for its nature conservation interest. This may conflict with the mineral extraction requirements in the area.</p> <p>The plan recognises the relationship between the MLP and the District Local Plan. It recognises that GCC are the determining authority for mineral extraction. "Reference should be made to the Gloucestershire Minerals Local</p> | <p>The linkages between plan objectives and relevant policies are shown in Table 1 of the revised deposit. This also includes targets and monitoring/performance indicators for each policy.</p> <p>No directly relevant indicators for Minerals.</p> | <p>Consider how the plan can contribute to Cotswold's aims and objectives, particularly in relation to conservation of the environment, sustainable construction.</p> | <p>Check to ensure that the aims and objectives of the plan for the promotion of sustainable development in Cotswold DC are reflected in the SA Framework.</p> <p>Check to ensure M&amp;W plan balances need for extraction and protection of natural resources</p> <p>Ensure that opportunities to enhance biodiversity created by minerals extraction are maximised.</p> |
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| <p>Plan, which sets out the sites and development policies for mineral development in the County to 2007, and also to <a href="#">Policy 48</a>, of this Plan, which covers environmentally sustainable construction and design”</p> <p><u>References to Minerals and Waste</u></p> <p>Paragraph (1.5.2) The Local Plan, together with the Gloucestershire Structure Plan (Second Review) and the Minerals and Waste Local Plans prepared by the County Council, form the Development Plan for Cotswold District.</p> <p><u>Paragraph (2.2.3)</u> The prudent use of natural resources is one of the Government’s objectives for sustainable development, and, given the high quality of the Cotswold environment, is of particular importance locally. This involves conserving resources, developing alternatives to their use and minimising waste by promoting more sustainable methods of waste management, both during the construction and operation of new development.</p> |  |  |  |
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| <p><u>Paragraph (2.2.4)</u> The Council ... will promote, through the implementation of <a href="#">Policy 1</a>, the sustainable management and enhancement of resources during the construction and operation of all new development. The objectives of the policy are to: reduce the demand for, and make the most efficient use of, natural resources; promote the use of alternatives; optimise the re-use and recycling of waste resources, including minerals; and protect and enhance natural resources where possible.</p> <p><u>Policy 17</u>: Minimising The Impact Of Lorries states:</p> <p>1. Development that is likely to generate increased or new lorry movements which would cause an unacceptable adverse impact on the highway, residential amenity, safety or the local environment, will not be permitted unless the impact can be adequately mitigated.</p> <p>2. Proposals for developments with significant freight requirements should be located along, or adjacent to, appropriate transport routes, particularly near alternative modes of transport, such as rail terminals.</p> |  | <p>Minerals can only be worked where they are found, this could give rise to possible conflicts with Policy 17. However, mitigation measures could include: reducing the need to travel by locating processing facilities closer to collection points and encouraging the movement of materials by rail and water. The use of alternative fuels should also be encouraged along with appropriate and sensitive routing.</p> |  |
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| <p><u>Policy 48:</u> (The Cotswolds District Design Code) also recognises that environmentally sustainable construction should minimise waste.</p> <p><u>Chapter 11:</u> deals with the Upper Thames area and recognises that minerals extraction and processing is an important source of employment that is likely to continue into the middle of this century. Section 11.1.8 identifies areas where mineral extraction is currently underway and where other resources exist.</p> |                                                           |                              |                                                                                                                                                                        |
| <b>COTSWOLD LOCAL DEVELOPMENT FRAMEWORK (AS OF SUMMER 2008)</b>                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                           |                              |                                                                                                                                                                        |
| <b>COMPONENTS OF LDF &amp; KEY RELEVANT ISSUES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b> | <b>IMPLICATIONS FOR PLAN</b> | <b>IMPLICATIONS FOR SA</b>                                                                                                                                             |
| Pre-submission local plan due for consultation Summer 2013.                                                                                                                                                                                                                                                                                                                                                                                                                           | Unclear until plan progresses further.                    | Unclear.                     | The SA Framework should appropriately reflect the key components of Cotswolds LDF and the promotion of sustainable development in the District and in Gloucestershire. |
| <b>COTSWOLDS COMMUNITY STRATEGY</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                           |                              |                                                                                                                                                                        |
| <b>KEY OBJECTIVES RELEVANT TO PLAN AND SA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>KEY TARGETS AND INDICATORS RELEVANT TO PLAN AND SA</b> | <b>IMPLICATIONS FOR PLAN</b> | <b>IMPLICATIONS FOR SA</b>                                                                                                                                             |

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| <p>The vision for the District up to 2011:</p> <p><u>Society and Community</u><br/>Our ambition is for a Cotswold District where:</p> <p>all people feel that they can have real influence over and can participate in the decisions that affect their daily lives.</p> <ul style="list-style-type: none"> <li>• All people have the opportunity to participate in leisure, cultural and sporting activities and there are the quality facilities and activities to meet their reasonable needs and aspirations.</li> <li>• The general health of the population is improving, inequalities in health are being reduced and where everyone has access to the health facilities and care they need.</li> <li>• Everyone is able to live in a home that meets their reasonable needs and aspirations.</li> <li>• People are safe, they feel secure and crime is maintained at or below current levels,</li> <li>• The pockets of deprivation present in the district are being minimised.</li> </ul> | <p>The level of household waste recycling in the district is high at around 17%. The Government has set the Council the highest target level in the county for recycling and composting domestic waste (40% by 2005-6). This is a substantial financial challenge for the Council. (Pg. 53).</p> <p>The need to reduce the amount of waste produced and increase recycling will lead to people having to change how they deal with the waste they produce, what is thrown away and how goods are packaged. It will also require there to be greater joint working across the County and with other districts. (Pg. 54-55).</p> | <p>Consider how the plan can contribute to sustainable development in the Cotswolds by developing policies that support the objectives of the community strategy.</p> <p>Consider that a large percentage of the Cotswolds is made up of AONB.</p> <p>Waste recycling targets for the District – relevant to Waste Minimisation SPD.</p> | <p>Check to ensure that the aims and objectives of the strategy are reflected in the objectives of the SA Framework.</p> |
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| <ul style="list-style-type: none"> <li>▪ Reasonable access will have been attained for local people to all basic services and facilities.</li> </ul> <p><u>Economy</u><br/>Our ambition is for a Cotswold District:</p> <ul style="list-style-type: none"> <li>▪ That has a positive and sustainable business environment which enables companies to develop and thrive in the district.</li> <li>▪ Where employment opportunities have been created and maximised in a sustainable way that enables the economy of the whole District to remain successful and well mixed.</li> <li>▪ Agriculture will have adapted to changing circumstances in a manner that is sensitive to the local environment, whilst maintaining a vibrant rural economy.</li> <li>▪ Where all people are well educated and have the skills they need to participate effectively in local life so that they are able to maximize their potential and the contribution they can make to their communities.</li> <li>▪ Where local employers have the people with the skills they need to prosper,</li> <li>▪ That has a safe, efficient and</li> </ul> |  |  |  |
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| <p>sustainable transport infrastructure, which facilitates a thriving economy and ease of access to communities and services across the district.</p> <ul style="list-style-type: none"> <li>▪ Where new development will have been planned and located so that it minimises car use, the need to travel and the impact of traffic generally, and encourages use of public transport, cycling and walking.</li> </ul> <p><u>Environment</u><br/>Our ambition is for an environment In the Cotswolds where:</p> <ul style="list-style-type: none"> <li>▪ Development will have been controlled in a way which continues to conserve and enhance the district's landscape, natural resources, built heritage and biodiversity.</li> <li>▪ The strategy of restraint on development in the district will have been maintained, whilst sufficient affordable housing will have been provided in the right sustainable locations to meet the district's needs.</li> <li>▪ Cirencester's role as the district's main service centre, together with the role of the Principal Settlements in providing everyday services to local communities, will have been enhanced, or, at the very least, maintained.</li> </ul> |  |  |  |
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| <ul style="list-style-type: none"> <li>▪ Pollution is kept at or below existing levels.</li> <li>▪ The river environment is protected, incidents of flooding have been reduced and domestic drinking water is safe and efficiently used.</li> <li>▪ Where our towns and villages are clean and well cared for.</li> <li>▪ The amount of waste produced and the use of finite natural resources, including energy, is minimised and as much waste, as possible is recycled (Pg. 62).</li> </ul> |  |  |  |
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**Appendix 4**  
Baseline Information



## Mineral baseline

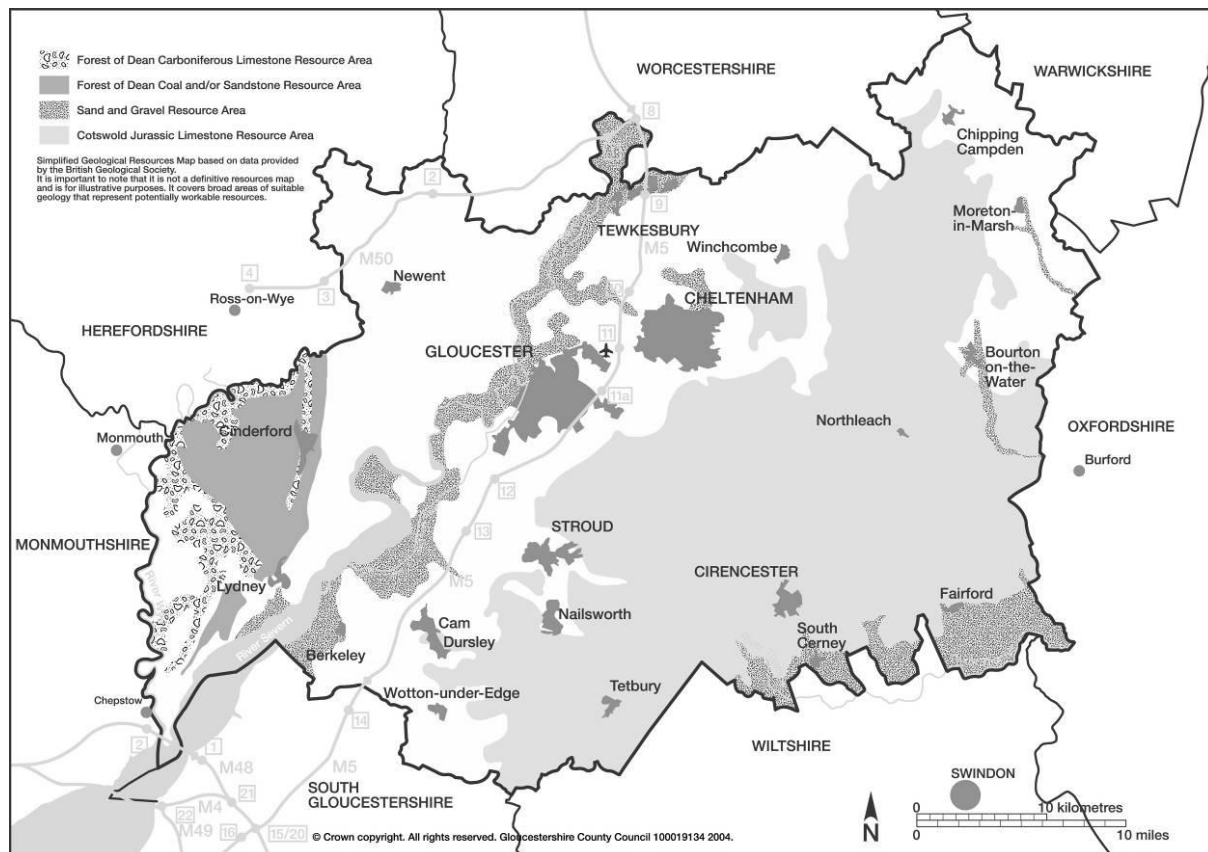
Gloucestershire has a diverse geological base with significant mineral deposits of economic value. The County can be subdivided into the following mineral resource areas:

**Table 1: Mineral Resource Areas in Gloucestershire.**

| Resource Area       | Mineral Type                                                                                                                                                                                    |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Forest of Dean      | <input type="checkbox"/> Limestone (Carboniferous)<br><input type="checkbox"/> Sandstone<br><input type="checkbox"/> Clay<br><input type="checkbox"/> Iron Ore<br><input type="checkbox"/> Coal |
| Cotswolds           | <input type="checkbox"/> Limestone (Jurassic)                                                                                                                                                   |
| Upper Thames Valley | <input type="checkbox"/> Sand and Gravel<br><input type="checkbox"/> Clay<br><input type="checkbox"/> Cornbrash (Jurassic Limestone)                                                            |
| Vale of Moreton     | <input type="checkbox"/> Sand and Gravel                                                                                                                                                        |
| Severn Vale         | <input type="checkbox"/> Sand and Gravel<br><input type="checkbox"/> Clay                                                                                                                       |

Gloucestershire possesses a range of mineral resources of local, regional and national importance. These include primary land-won and recycled / secondary aggregates, energy minerals such as coal, and non energy minerals that include clays and building stone. The map below gives a simplified indication of Gloucestershire's mineral resources.

**Figure 1: Gloucestershire's Mineral Resources**



## Sand and Gravel

The sand & gravel resources of Gloucestershire comprise of fluvio-glacial and fluvial deposits that occur irregularly, but extensively over a number of lowland areas and river valleys around the County. Notable concentrations of sand & gravel deposits can be found to the southeast within the Upper Thames Valley, throughout the central lowland corridor of the Severn Vale, and to the far northeast of Gloucestershire, along a wide river valley area, called the Vale of Moreton. There are also some very small pockets of sand working around the Bromsberrow Heath area. Supplies

In 2011, 0.85 million tonnes of sand & gravel was supplied from Gloucestershire. The majority of this supply was sourced from the Upper Thames Valley resource area. The remainder originated from sources elsewhere across the county. As of 01/01/2012 the Aggregate Reserve total was 6.75 million tonnes.

### Infrastructure

The vast majority of sand and gravel sites are concentrated within the Upper Thames Valley (UTV) resource area. However, there are minor sources in the Severn Vale corridor and in the Bromsberrow area. In terms of sand & gravel processing, the Upper Thames Valley area has the most capacity available in the county. Minerals Core Strategy Technical Evidence Paper MCS-A (July 2007) indicates that there are two concrete batching plants, four fixed processing plants and a block-making factory which benefit from planning permission. In addition, substantial processing opportunities can be found across the county boundary within Wiltshire. Example sites include: the Cleveland Farm Complex near Ashton Keynes and Eysey Manor Farm to the East of Latton. Outside of the Upper Thames Valley there is much less processing capacity, including two ready mixed concrete plants and several mobile processors. One of the ready mixed concrete plants is a stand-alone, satellite operation, which is fed by imported material some of which is occasionally barged along the River Severn and Sharpness Canal from Ryall quarry in Worcestershire.

### Markets

Market information for sand & gravel is based on washed and graded materials rather than as a finished aggregate product. Consequently, it is difficult to establish true market information and trends of local supplies as it is often transported from one site to another (sometimes across county and regional boundaries) depending upon the availability of plant and the proposed end-use. 2005 data would suggest that only a small fraction of sand & gravel is marketed directly within Gloucestershire. However, it is likely that a high proportion of the county's sand & gravel supplies are brought back to Gloucestershire as a finished aggregate product.

The four yearly national survey of aggregates (AM survey) has provided marketing data for 2009 (the next national survey would be for 2013). This indicates that in 2009 the Gloucestershire industry was responsible for 30% of the south west's sales of land won sand and gravel but of the county's sales only 19% (0.173mt) was marketed within Gloucestershire (the same proportion as shown for 2005 in the AM05 national survey).

## Crushed Rock

Gloucestershire's crushed rock resources can be divided into two specific types of limestone. These are separated over geological time and by geographical location. The older resources, known as Carboniferous limestone, occur within the Forest of Dean. And the younger resources, called Jurassic limestones are found in the Cotswolds. The Carboniferous limestones have the greatest degree of flexibility as an aggregate mineral. This is because they are more durable and harder than the Jurassic limestones. Whilst both limestone types can be used in general construction, it is generally only Carboniferous limestones that can provide for a wider range of high specification projects. Although two distinct crushed rock resource areas have been identified within Gloucestershire, the overall distribution of these resources is not confined to the County's administrative boundaries. For the Jurassic limestones of the Cotswolds, the resource area is much wider and covers parts of the neighbouring authorities of Bath & North East Somerset, Oxfordshire, Warwickshire, and Wiltshire. In the case of the Carboniferous limestones from the Forest of Dean, comparable resources have been worked in the adjoining Welsh authority of Monmouthshire and more significantly to the Northwest of South Gloucestershire. There are also significant crushed rock resources further a field, which may have a relationship to Gloucestershire. These are found within North Somerset and Somerset.

### *Supplies*

In 2010, 1.2 million tonnes of crushed rock was supplied from Gloucestershire.

### *Infrastructure*

Minerals Core Strategy Technical Evidence Paper MCS-B (July 2007) states that, according to recent data a total of 20 quarries with the potential for crushed rock working are identified in Gloucestershire. Of these, 12 quarries are in active production, and 13 are classed as either not in production or only supplying other quarried products (e.g. building stone and agricultural lime) There are a further five un-worked and “dormant” quarries which will require additional planning permissions for schemes of conditions of working before their reserves can be worked.

Most of the County’s crushed rock infrastructure and operational capacity is focused within the existing quarry sites of the Forest of Dean resource area. Minerals Core Strategy Technical Evidence Paper MCS-B details the fact that, according to recent figures there are three fixed processing plants, two roadstone coating plants, a concrete batching plant, a ready-mix concrete plant and several aggregate recycling facilities within this resource area. In contrast, crushed rock infrastructure within the Cotswold resource area are considerably less, with only two fixed processing plants, one concrete batching plant and one aggregate recycling facility in operation. Nevertheless, some mobile crushing plants are used intermittently at several hybrid-quarries that produce small amounts of crushed rock in association with building stone.

It should be noted that the majority of ancillary plant used in the Cotswold resource area is of a mobile nature and is also required for building stone purposes (e.g. cutting, dressing, bagging etc.) and agricultural lime production.

### *Markets*

In 2009, 0.609 million tonnes of crushed rock supplies were marketed within Gloucestershire. 12% was marketed elsewhere in the South West, with 36% being marketed in destinations outside of the region. However, due to some external processing outside of the county a proportion of the non-Gloucestershire supply may actually end up back in the county as a finished construction product.

### *Reserves*

As at 2011 the countywide reserves of crushed rock totalled 31.1 million tonnes.

- Remaining years of the crushed rock landbank

Based on 2005 to 2020 Guidelines, the remaining landbank for the County is 13.83 years.

## **Natural Building & Roofing Stone**

The working of natural building & roofing stone is an important part of the mineral industry in Gloucestershire. It is required for the ongoing repair and maintenance of the county’s rich and diverse historic built environment and for supplying new-build and specialist, high-grade architectural projects. Gloucestershire’s natural building & roofing stone resources are divided into two mineral types: Limestone and Sandstone.

These are separated over geological time and resource location across the county.

### *Supplies*

In 2011 the total sales of non-aggregate stone, for building and roofing stone the figures are as follows: limestone 38,640 tonnes, sandstone 11,266 tonnes, making a total of 49,906 tonnes.

### *Markets*

There are two principal markets for natural building & roofing stone – repair of historic buildings and new build projects. In Gloucestershire, the repair of historic buildings is a significant driver of local demand. The county has a renowned and rich built heritage, which includes over 13,432 listed buildings and 287 conservation areas. A significant number of buildings and structures covered by one of the listings or which lie within a conservation area will at some point require new stone for repair and maintenance purposes.

Despite the UK wide downturn in the production of building stone over the last 100 years or so, the local market has remained relatively constant. Planning policies and controls have also had an influence on the

strength of this local market. This is demonstrated through district local plans and technical planning guides wherein policy support is given for the use of natural local stone, where it will act as a direct or suitable replacement in the repair of the historic environment.

The other key market for local building stone is new build projects. This is concerned with maintaining vernacular styles and local distinctiveness through the greater use of local building materials. It also refers to the specific requirements of certain contemporary styles in both external and internal decoration (e.g. carved fireplaces, sculptures, ornaments and flagstones). Similar to the sector for historic stone, district planning policies look to encourage the use of local building stone, where it contributes to the quality of the built environment.

### **Reserves**

Due to the variability of the county's building stone resources, particularly those found in the Cotswolds it has proved extremely difficult to provide an accurate level of permitted reserves, which remain within the county.

As well as having to contend with a wide range of different stone types within each of the key mineral resources, there are also considerable variations in the type of building stone products that can be produced.

Furthermore, the variability in local resources can change significantly over a short space of time and within a relatively small area. Different layers / stone strata can become exhausted or revealed in a matter of weeks as quarry faces are worked through. A further complication in determining reserves is concerned with the opportunity to extract different quarried products alongside building stone. This is a key issue with the county's Carboniferous and Jurassic limestone, which also provides for a supply of crushed rock aggregate and small quantities of agricultural lime. Where reserve assessments are carried out at relevant quarries it can prove extremely difficult to distinguish between which part of the reserve will prove suitable as a building stone, or for another quarried product.

Nevertheless, local operators are still actively encouraged to provide annual estimates of their non-aggregate reserves. These estimates cover all natural building stone products, and agricultural lime, where it is also worked. In 2011, non-aggregate reserves in Gloucestershire were estimated to be 6.34 million tonnes of limestone and 1.73 million tonnes for sandstone.

### **Recycled Aggregates**

Recycled Aggregates in Gloucestershire are principally derived from the reprocessing of waste materials from construction and demolition projects. It is mainly made up of concrete and hardcore, although can also include railway ballast and road planings. The availability of recycled aggregates is very much dependant upon the level of activity of the construction industry and other infrastructure scheme such as road maintenance.

### **Secondary Aggregates**

The availability of secondary aggregates in Gloucestershire is currently limited. The Forest of Dean coalfield represents the only notable source, associated with the re-working of old colliery spoil tips. Unfortunately the quality and marketability for this material is extremely variable and some spoil tips are constrained by environmental and other recreational interests. A further very limited source includes foundry ash and brick waste.

### **Energy Minerals**

Energy minerals in Gloucestershire comprise of coal, and potential resources of gas and oil, which are principally used as a fuel in energy generation. Coal resources are focused around a 90km<sup>2</sup> area to the west of the County, in the Forest of Dean Coalfield. Less clear is the occurrence of potential gas and oil resources.

Despite extensive seismic and other investigations, with exploratory drilling for hydrocarbons in the County between 1975 and 1990, oil and gas resources remain an unquantified resource in Gloucestershire.

## Non - Energy Minerals

Non-energy minerals provide a small but no less important, contribution to Gloucestershire's mineral industry.

These resources include non-aggregate limestone and sandstones from the Forest of Dean and nonaggregate limestone from the Cotswolds used for building stone and agricultural lime. In some areas these minerals are worked in-conjunction with crushed rock aggregate. In addition clay minerals that occur in the Severn Vale, Vale of Moreton and Forest of Dean are used as a bulk fill, landfill cover, flood defence and for brick manufacturing. Resources of Iron Ore located within Forest of Dean also fall into this category.

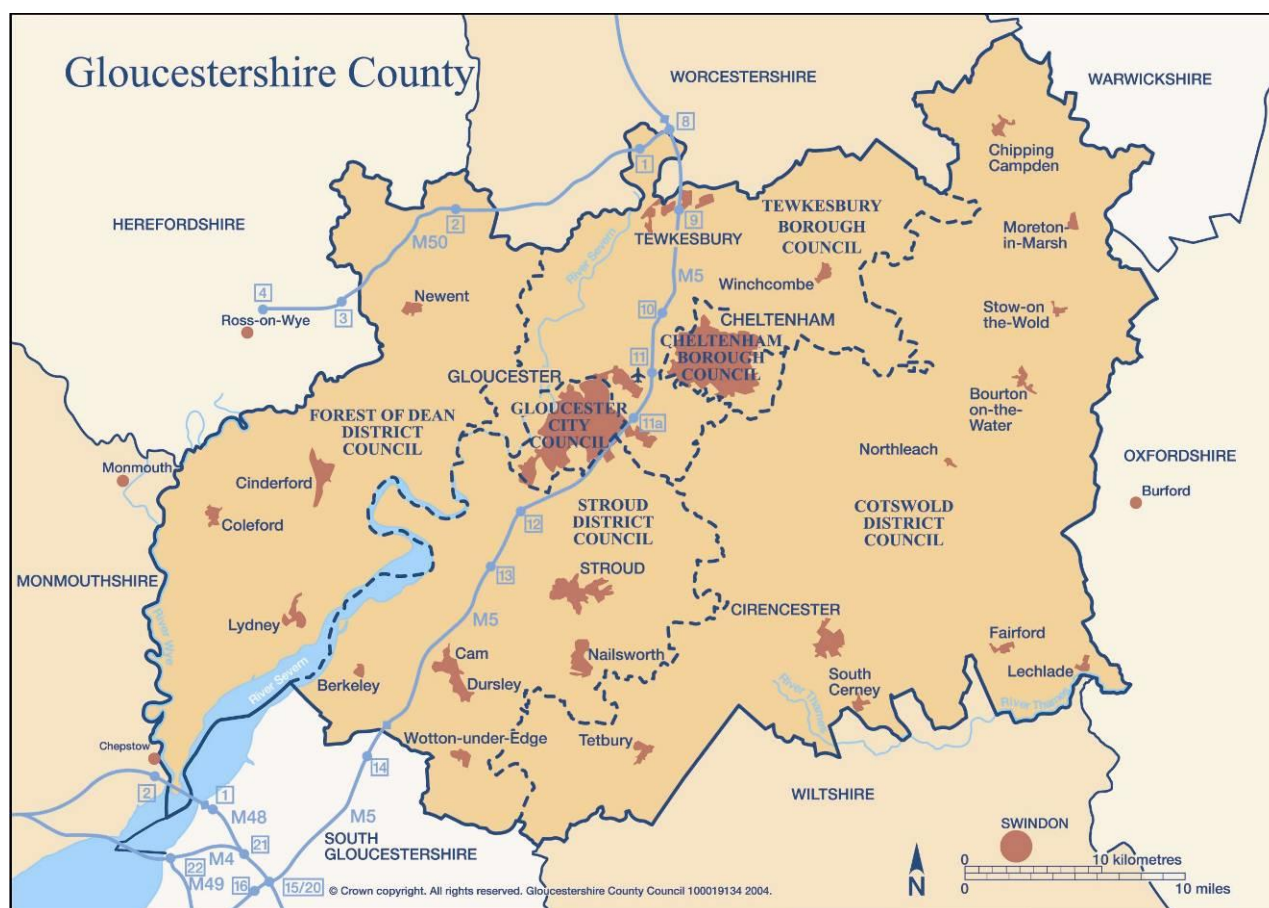
However, this resource has not been worked in the County since the Second World War.

## Other Baseline Information

### Overview and character of the county

The heritage, culture and environment of the County helps support the County's quality of life and economy. Gloucestershire is substantially a rural county with the main urban focus in Gloucester and Cheltenham. It supports a wealth of international, national and locally important environmental assets, which need the appropriate level of protection from minerals and waste development.

**Figure 2: Gloucestershire and the six Districts**



## Gloucestershire in relation to the factors in Annex 1 of the SEA Directive

### Biodiversity

As a rural county Gloucestershire is relatively rich in habitats and species and much has been achieved through the Biodiversity Action Plan (BAP) process and on going through the new Local Nature



Partnership, see: <http://www.gloucestershirebap.org.uk/> for more details. However certain species are still in decline and habitats are being lost. Climate Change may prove to be very serious long term threat adding to declines. The County has a wide array of nature conservation designations ranging from the International level to the Local. International nature conservation designations include Ramsar sites, Special Protection Areas (SPAs) and Special Areas of Conservation (SACs).

The MLP should conserve and enhance biodiversity by minimizing impacts of development.

Ramsar sites are Wetlands of International Importance listed under the auspices of the Ramsar Convention on Wetlands (established in Ramsar, Iran, in 1971). SPAs are designated under the EU Birds Directive (79/409/EEC) in order to conserve the habitats of vulnerable species (listed in Annex I of the Directive) and of migratory birds. SACs are designated under the EU Habitats Directive (92/43/EEC). As a requirement of DPD preparation, the Minerals and Waste Planning Policy Team have to undertake a Habitat Regulations Assessment (HRA) of the plans it is producing. The purpose of HRA of land use plans is to ensure that protection of the integrity of European sites is a part of the planning process at a regional and local level. The requirements are outlined in Article 6(3) and (4) of the European Communities (1992) Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora ("Habitats Directive"). To date, the process has involved producing a Baseline report on European Sites (i.e. on SPAs and SACs) that are in and close to Gloucestershire well as a report at each stage of formal consultation which assesses options. See the link below for all the details on the HRA process.

<http://www.gloucestershire.gov.uk/extra/article/107942/Habitats-Regulations-Assessment-HRA-and-Appropriate-Assessment-AA>

**Figure 3** below and **Table 2** detail the European Sites in and close to Gloucestershire.

**Figure 3: European Sites in and close to Gloucestershire**

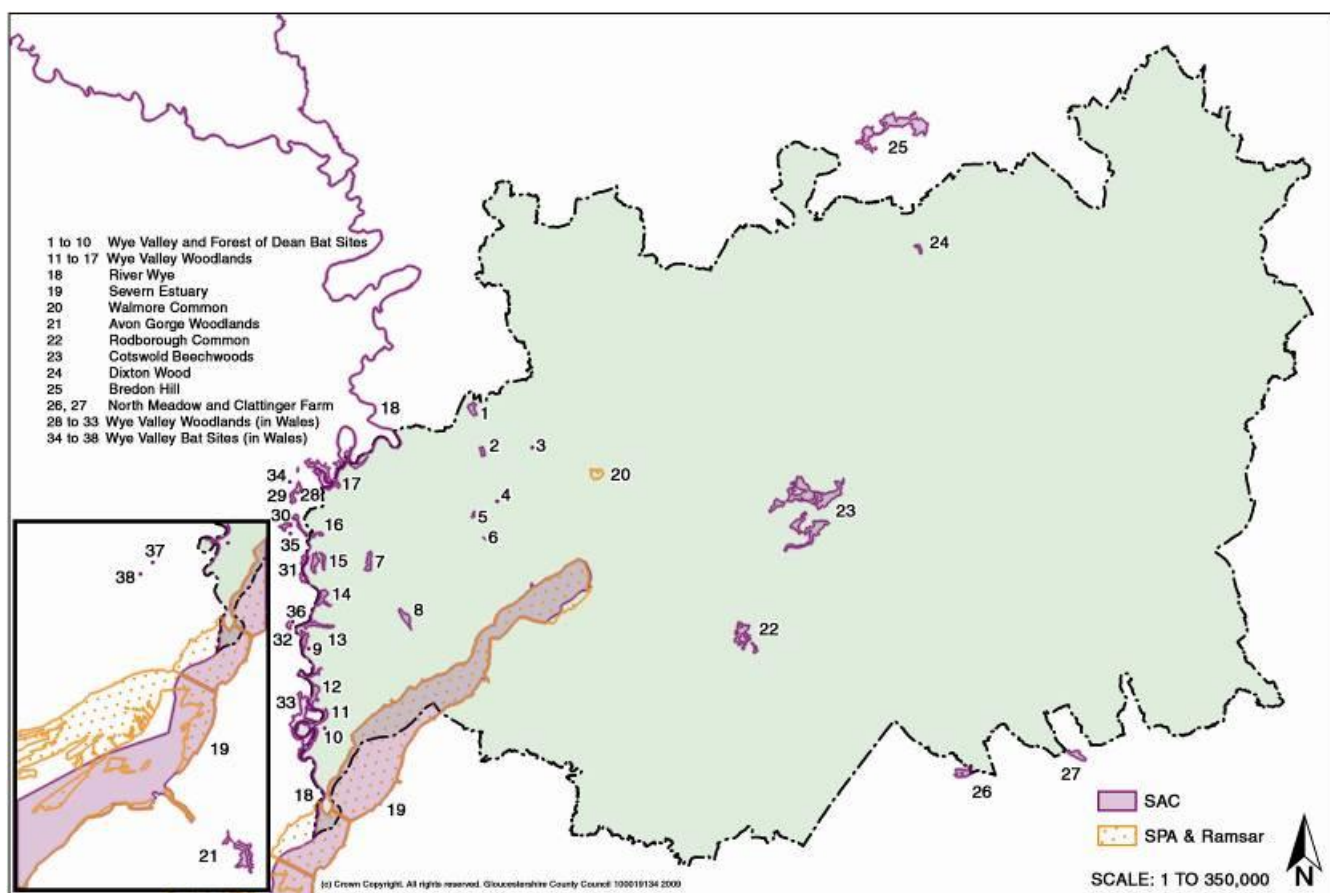
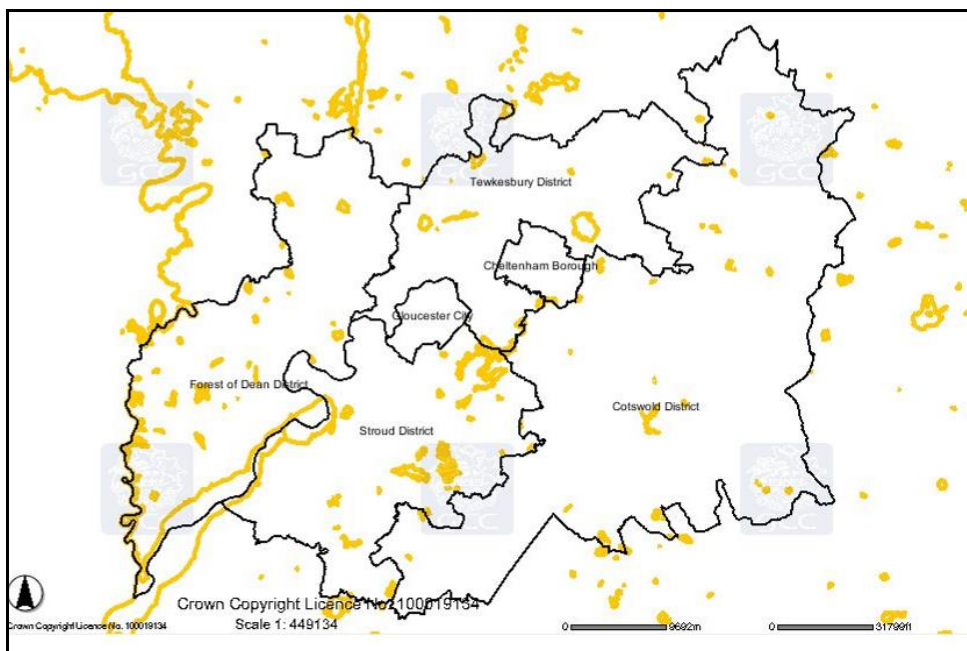


**Table 2: European Sites in and close to Gloucestershire**

| European Site                           | Designation  | District / Area                                     |
|-----------------------------------------|--------------|-----------------------------------------------------|
| Rodborough Common                       | SAC          | Stroud                                              |
| Dixton Wood                             | SAC          | Tewkesbury                                          |
| Wye Valley and Forest of Dean Bat Sites | SAC          | Forest of Dean, Monmouthshire                       |
| River Wye                               | SAC          | Forest of Dean, Monmouthshire, Herefordshire, Powys |
| Wye Valley Woodlands                    | SAC          | Forest of Dean, Monmouthshire, Herefordshire        |
| North Meadow and Clattinger Farm        | SAC          | Wiltshire                                           |
| Cotswold Beechwoods                     | SAC          | Cotswold                                            |
| Bredon Hill                             | SAC          | Worcestershire                                      |
| Walmore Common                          | SPA & Ramsar | Forest of Dean                                      |
| Severn Estuary                          | SPA & Ramsar | Stroud, Forest of Dean                              |

All SPAs and SACs in Gloucestershire are also designated Sites of Special Scientific Interest (SSSI). SSSI are designated by Natural England to provide statutory protection for the best examples of the UK's flora, fauna, or geological or physiographical features. Consultation is required if they are threatened in any way. There are over 100 SSSIs in Gloucestershire – see **Figure 4** below. Four SSSIs have been additionally designated as National Nature Reserves (NNRs).

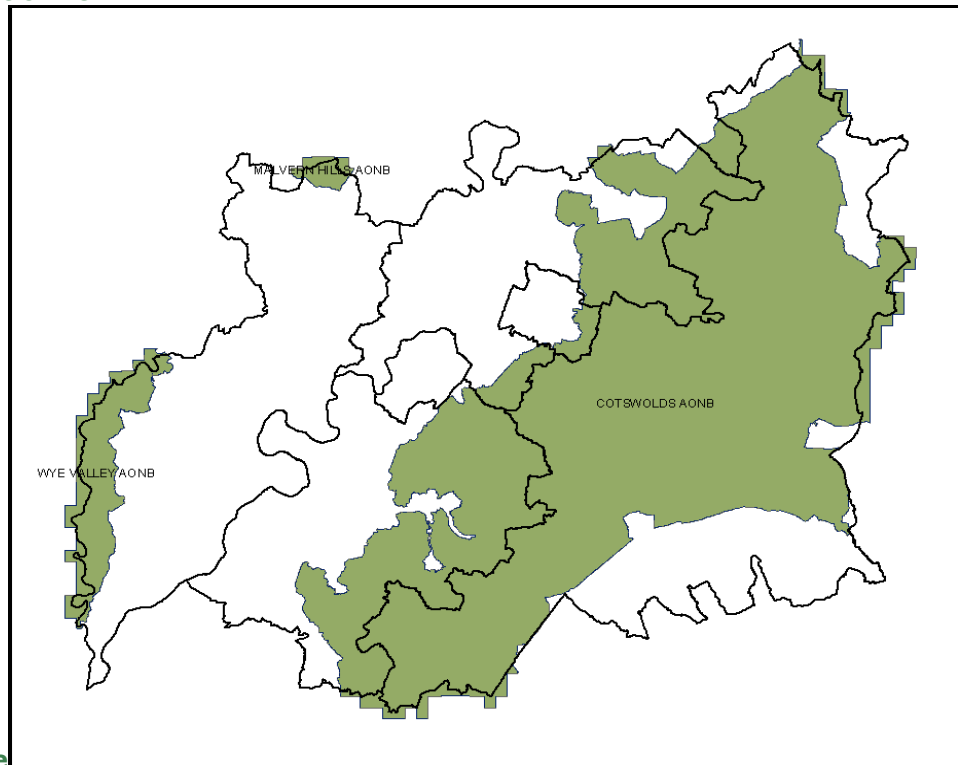
**Figure 4: SSSIs in Gloucestershire.**



The largest designation in terms of extent are the three Areas of Outstanding Natural Beauty (AONB) in the County: the Cotswolds, part of the Wye Valley and a very small section of the Malvern Hills. AONBs cover 136,400 hectares or 51.4% of the County area – see **Figure 5** below.

**Figure 5: Extent of AONB in**

**Gloucestershire**



Their primary purpose is to conserve and enhance natural beauty while taking into account the economic and social needs of the area.

In addition to the international and national designations listed above there are a range of local designations including Key Wildlife Sites (see **Figure 6** below), Local Nature Reserves, Private Nature Reserves (for example those managed by the Wildlife Trust, Woodland Trust and Royal Society for the Protection of Birds (RSPB), Regionally Important Geological Sites (RIGS)<sup>32</sup>, Special Landscape Areas, Ancient Woodland Sites (see **Figure 7** below), and Registered Commons.

The MLP should conserve and enhance the landscape and scenic beauty of the AONB.

<sup>32</sup> While the government has proposed to change the name of Regionally Important Geological Sites (RIGS) to Local Geological Sites; in Gloucestershire they are still referred to as RIGS.



Figure 6: Key wildlife sites in Gloucestershire

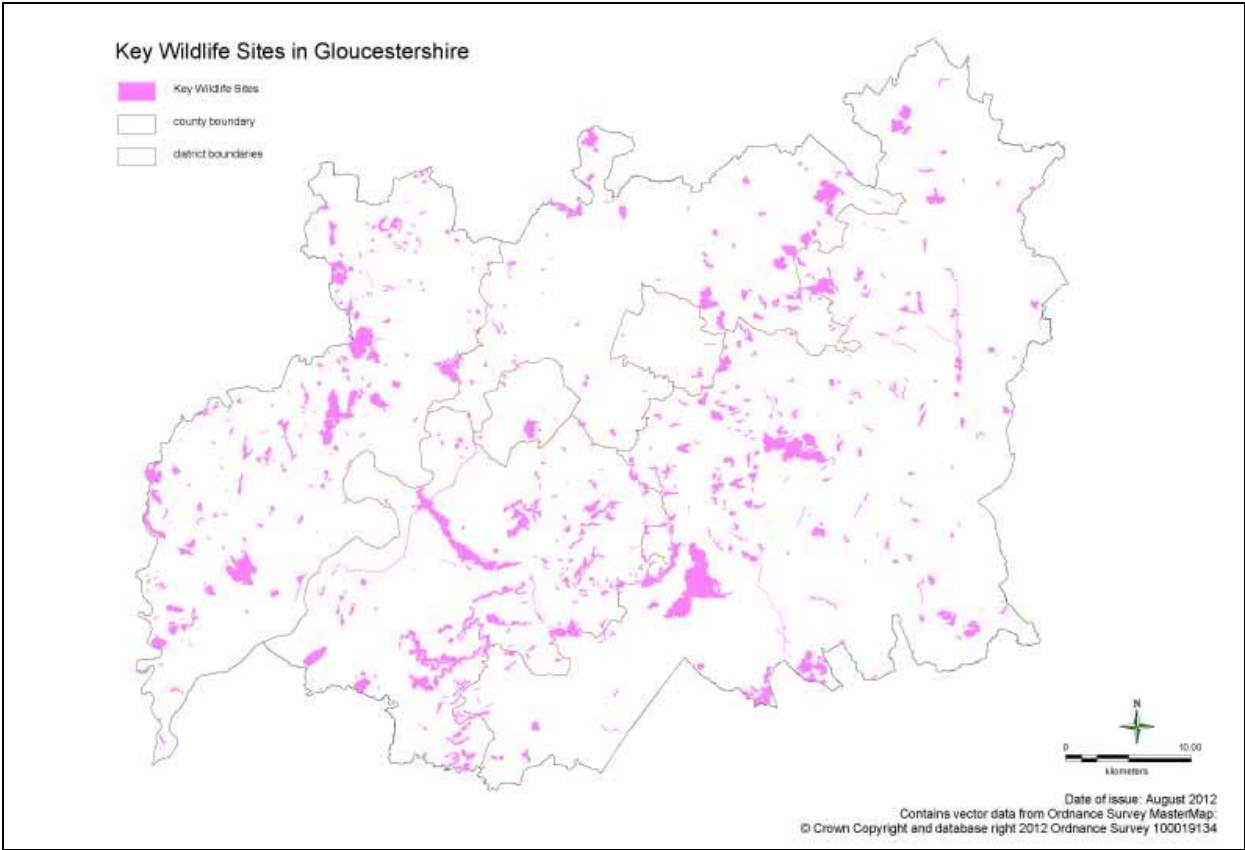
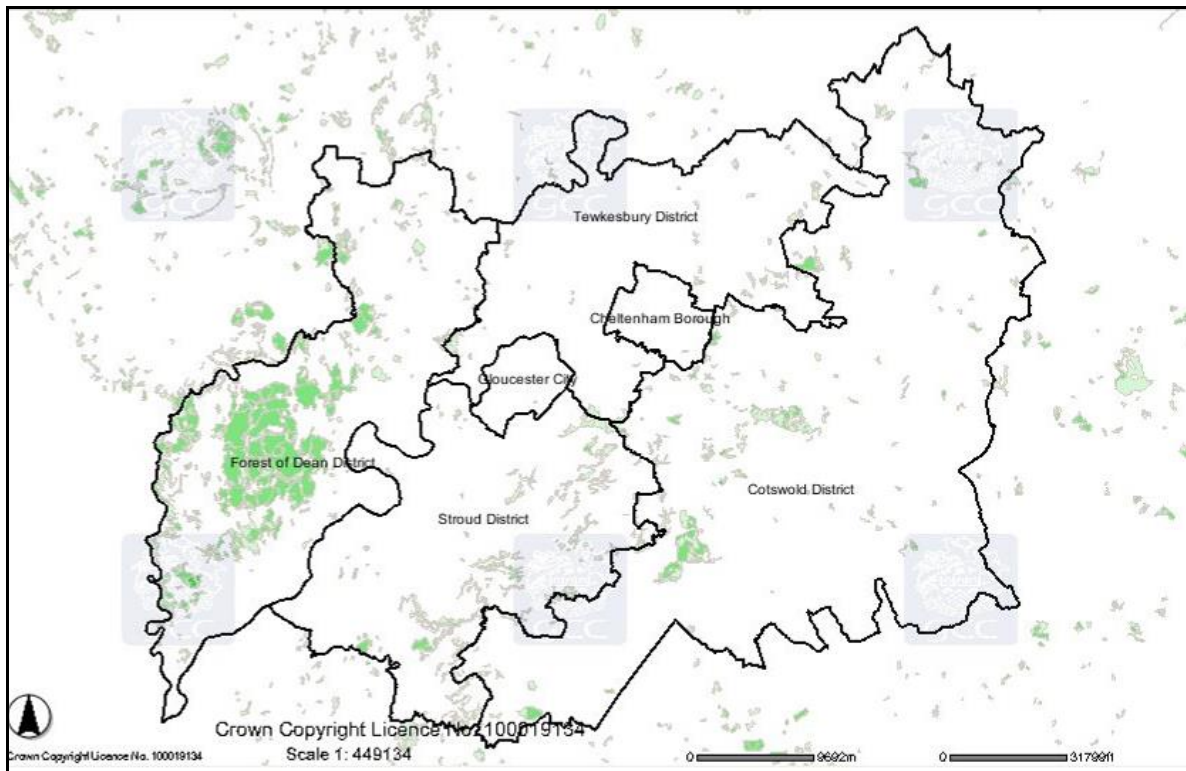


**Figure 7: Extent of Ancient Woodland in Gloucestershire**



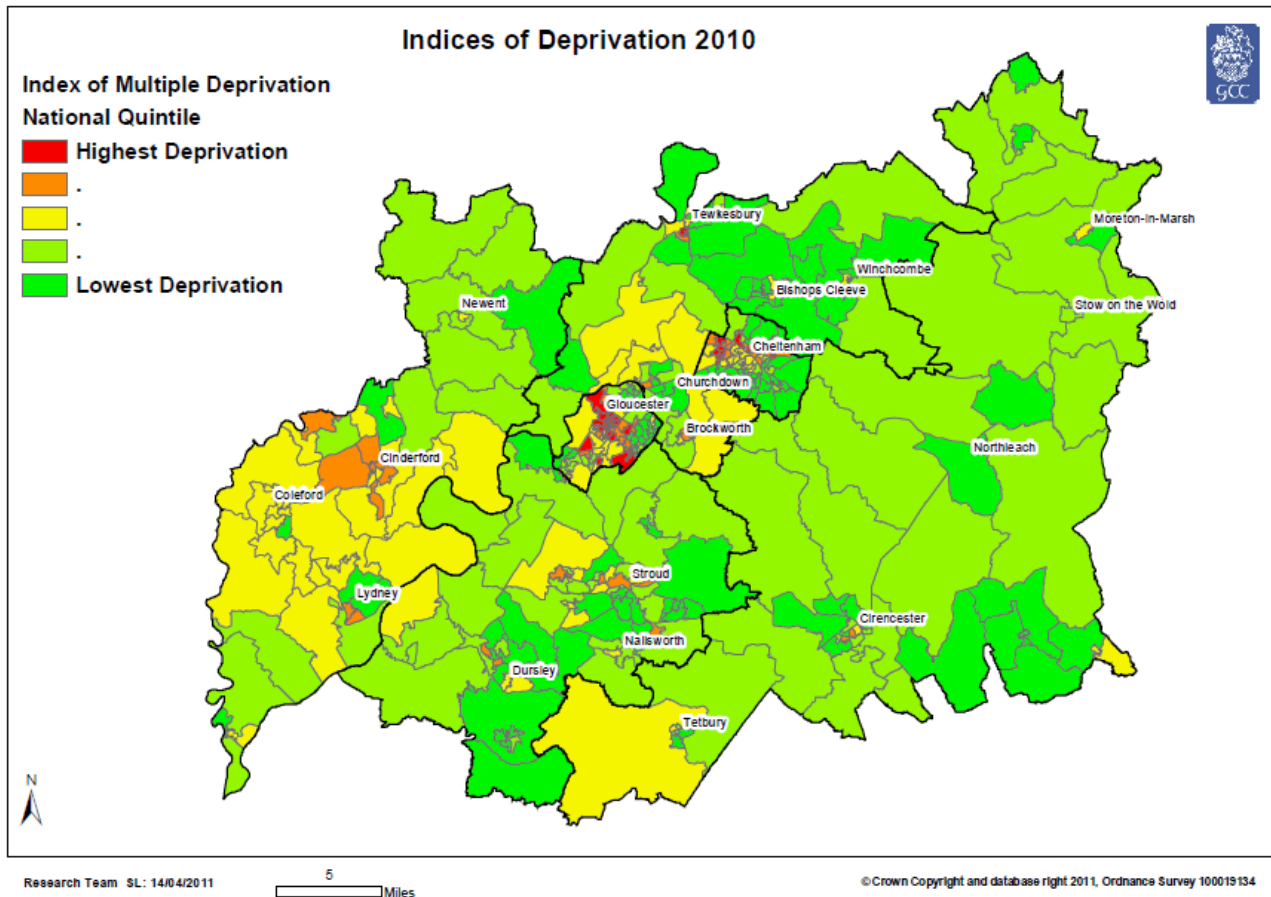
### Population

There are approximately 593,000 people living in Gloucestershire. The large majority (84%) of people in Gloucestershire described themselves as “White British”. A further 9.7% were also “White” but from a minority group (i.e. White Irish/ White Other). Around 6.2% people were from a BME (non-white) group. The County’s population grew by 32, 400 between 2001 and 2011 (the date of the last census) and is projected to grow by about 0.51% each year, and is expected to reach 670,000 by 2035. Most of the increase in population has resulted from net in-migration and natural growth. Clearly this has implications in terms of the levels of housing and infrastructure required in the County over the next years. Population projections are used to estimate how many residential units might be required in future years.

In terms of the local economy, key economic indicators show Gloucestershire in a favourable light. The County has historically low levels of unemployment, and gross value added per head similar to the national average. Unemployment in Gloucestershire was 5% in 2012 (figures from South West Observatory), well below the national figure of 7.6%. In 2011 the average County income was £25, 817, almost £1000 lower than the national average. However the average income in Tewkesbury and Cheltenham were well above the national average. The Gloucester was well below. The County Average Weekly Earnings (Resident based gross – ASHE 2011) was £482 (figures from Gloucestershire First). The National figure in 2011 was £491 (figures from ONS ASHE 2011).

According to Government Indices of Deprivation there are significant pockets of deprivation in the County mainly in the urban areas of Gloucester and Cheltenham. The Indices of Deprivation are made up of 7 domains: Income; Employment; Health deprivation and disability; Education, Skills and Training deprivation; Barriers to Housing and Services; Crime and Living Environment. These are combined to give the Index of Multiple Deprivation. For Gloucestershire the ID2007 Super Output Areas in the national top 10% (i.e. in the worst 10%) are: Podsmead (1), Matson & Robinswood (1), Westgate (1), Westgate (3) Kingsholm and Wotton (3) St Mark’s (1), St Paul’s (2), and Hesters Way (1). (See **Figure 8** Below).

**Figure 8: Gloucestershire Index of Multiple Deprivation 2010**

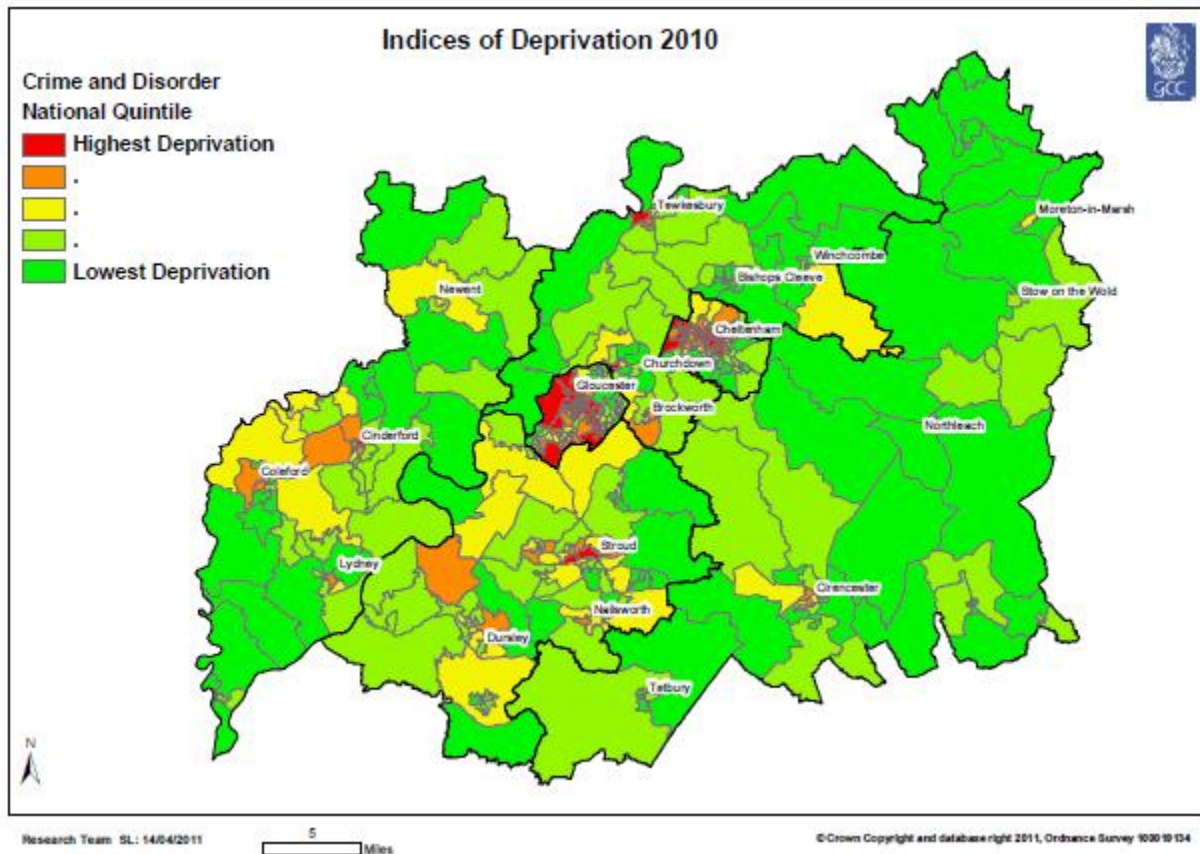


More information is available through *MAIDeN*, the multi-agency database for neighbourhoods in Gloucestershire at the following website:

<http://www.maiden.gov.uk/>

In terms of crime rates the figures for Gloucestershire are relatively low, compared to the national average for the key crimes such as domestic burglaries, violent offences, vehicle crimes and robberies. See **Figure 9** below for an indication of Gloucestershire's crime 'hotspots'.

**Figure 9: Crime Hotspots in Gloucestershire**



## Human Health

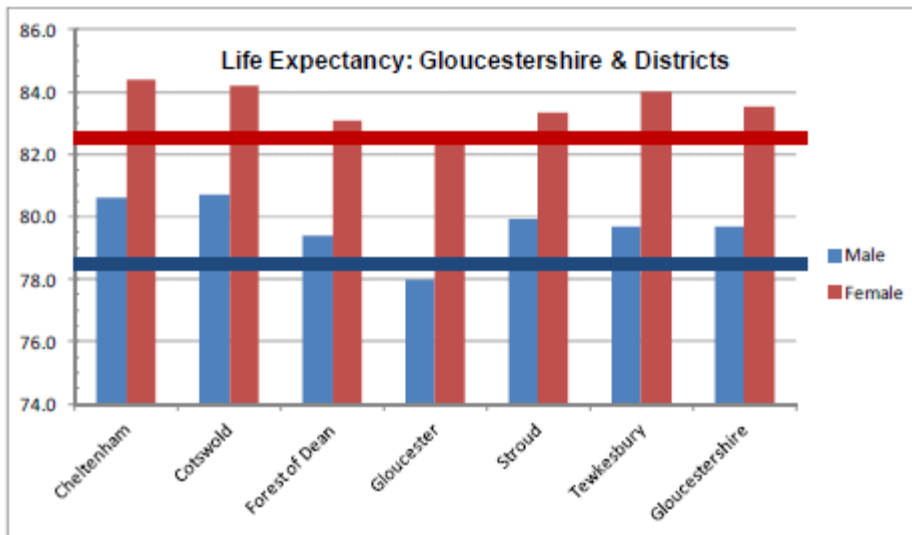
### General health

The following information on health in Gloucestershire comes from a 2008 Health Profile which was funded by the Department of Health and produced annually by the Association of Public Health Observatories. Health indicators in Gloucestershire are generally better than for England. On average, people live longer than the England average. Levels of deprivation across Gloucestershire are generally low compared to the rest of England. However, there are pockets of deprivation in Gloucester and Cheltenham where life expectancy is lower than the rest of the county. All age, all cause mortality, early death rates from heart disease and stroke and from cancer are lower than the England rates and falling.

### Life expectancy

The following chart shows that for both men and women, life expectancy at birth in Cotswold District, Tewkesbury Borough, Cheltenham Borough and Stroud District is higher than the average for England. Gloucester City is very close to the national average. Men in Gloucester are below the English average.

**Figure 10: Life Expectancy at Birth – England & Districts in Gloucestershire**

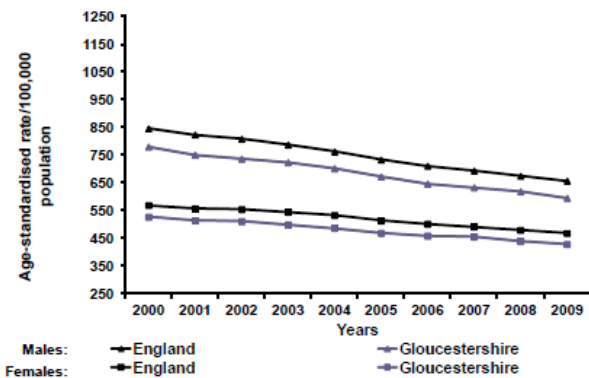


### Key trends

The following trend charts showing 1. All cause mortality, 2. Early death rates from heart disease and stroke, 3. Early death from cancer indicate that broadly, for both men and women, Gloucestershire is following national trends in terms of improved health.

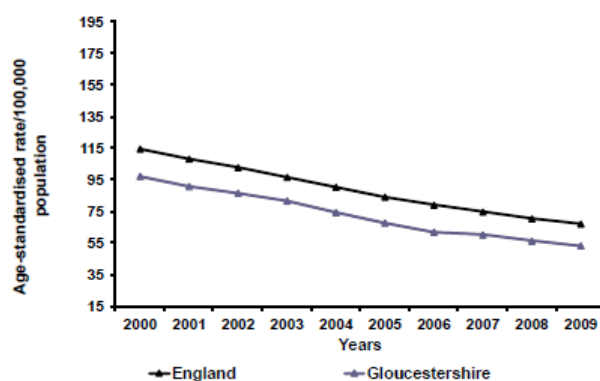
#### Trend 1:

##### All age, all cause mortality



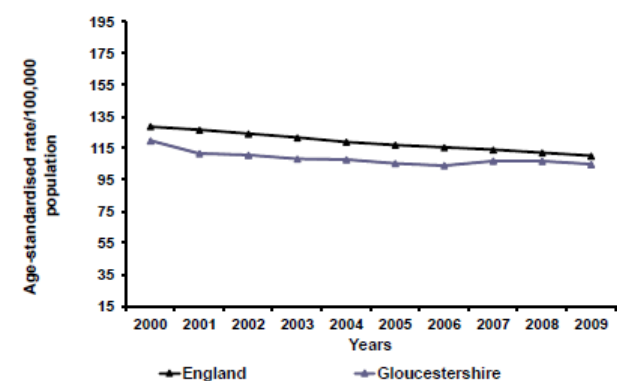
#### Trend 2:

##### Early death rates from heart disease and stroke



#### Trend 3:

##### Early death rates from cancer





## Flora and Fauna

Despite the large number of statutory and local designations, Gloucestershire has suffered from large-scale habitat and species loss over the last 50 years. This has largely been due to changes in farming practices. Among the species that have suffered from decline are farmland birds. At present approximately 100 species identified in the as UK priority species are thought to occur in Gloucestershire. Many of these species are also listed for protection under the European Union Habitats Directive including: the European Otter, the Dormouse, the Lesser Horseshoe and Greater Horseshoe Bat and the Pipistrelle Bat. Over 60 bird species listed under the EU Birds Directive have been recorded in Gloucestershire. Wetlands areas such as the Severn Estuary, Slimbridge Wildfowl Centre and the Cotswolds Water Park centre provide important habitats for over-wintering and migratory birds.

In terms of the protection of flora and fauna, under Section 41(3) of the Natural Environment and Rural Communities Act 2006 (NERC) the Secretary of State must take steps (where they are reasonably practicable), and promote the taking of steps by others, to further the conservation of certain listed habitats and species. In light of this duty, seven sectors have been identified where actions taken by public bodies and other stakeholders could deliver significant conservation benefits for the habitats and species on the list. The English List is available on the Natural England website at:

<http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/habsandspeciesimportance.aspx>

The Gloucestershire Biodiversity Framework & Delivery Plan 2010 provides a basis for the conservation of local biodiversity which targets the conservation, enhancement and creation of priority habitats within the Gloucestershire Nature Map. The Gloucestershire Nature Map consists of a number of priority areas called Strategic Nature Areas (SNAs). When viewed alongside the rivers targeted by the Environment Agency through the Water Framework Directive process the Gloucestershire Nature Map represents a strategic ecological network for Gloucestershire. Additional to the county approach the Cotswold Water Park Biodiversity Action Plan 2007-2016 provides detailed information and biodiversity targets for the south west corner of the County and into Wiltshire and Swindon which can be found at:

<http://www.waterpark.org/wp-content/uploads/2013/01/FINALCWP-BAP-2007-16-v8print.pdf>

## Soil, Air and Water

### *Soil*

Soil erosion is an increasing problem throughout the UK. About 50% of all land in the South West is thought to be at risk and about 6% of agricultural soils already suffer from erosion. Certain soils found in the far south west of the County, straddling the boundary with South Gloucestershire are listed as having an inherent vulnerability to high or severe structural problems. Such soils are easily sealed by heavy rain increasing the likelihood of local flooding and mud on roads. The increased sediment in rivers caused by soil runoff also poses a threat to aquatic ecosystems.

The MLP should where possible use poorer quality land in preference to the best and most versatile agricultural land.

### *Air*

Air quality is a less significant issue in Gloucestershire than in some counties as a result of the largely rural nature of the County. However, road transport is a major source of local air pollution and both Gloucester City and Cheltenham Borough exhibit significantly higher concentrations of pollutants associated with road traffic than the more rural districts. The issue of air quality has been considered within the Gloucestershire Local Transport Plan 3. The six district authorities in conjunction with Gloucestershire County Council have undertaken individual air quality reviews and assessments. These have examined the extent of any potential exceedances of national air quality objectives for nitrogen dioxide and particulate matter. The results from local authority air quality review and assessment work indicate that the contribution of road traffic emissions to local air quality is potentially significant within the County. However, an overall reduction of between 20 to 30%, and in some cases even greater, in the annual mean nitrogen dioxide was predicted between 1998 and 2005 across the County. For particulate matter concentrations, the predicted reduction in the annual mean between 1998 and 2004 was even greater, with a reduction of almost 50% predicted. Results from Stage 2 of this assessment work, indicate that exceedances are envisaged along the M5 motorway corridor, at receptors within 50 metres

of the carriageway. A small number of road links have also been identified as having the potential to cause future exceedances of the air quality objectives.

The table below lists the Local Air Quality Management Areas that have been declared in the County. An Air Quality Management Area is defined where members of the public are likely to be exposed to exceedances in the levels of pollutant. The higher the number of Air Quality Management Areas in a District would indicate generally higher levels of air pollution.

| <i>Local Air Quality Management Areas in Gloucestershire.</i> |                                         |
|---------------------------------------------------------------|-----------------------------------------|
| Gloucester City                                               | Barton Street                           |
|                                                               | Priory Road / St Oswald's Road          |
|                                                               | Painswick Road (West of Eastern Avenue) |
| Tewkesbury                                                    | Withy Bridge M5 / J10                   |
| Forest of Dean                                                | None                                    |
| Cheltenham                                                    | Old Bath Road (A46)                     |
| Stroud                                                        | None                                    |
| Cotswold                                                      | Birdlip, Air Balloon Roundabout (A417)  |

The MLP should help meet local, national and international objectives for air quality.

### *Water*

Gloucestershire has around 690 km of rivers (11% of the total in the South West), which are monitored by the Environment Agency for river quality.

The water quality is monitored as part of meeting the Water Framework Directive (WFD). The WRD will help protect and enhance the quality of:

- surface freshwater (including lakes, streams and rivers)
- groundwaters
- groundwater dependant ecosystems
- estuaries
- coastal waters out to one mile from low-water

In terms of WFD the River Severn Water Management Plan details that the Severn Vale Catchment in regards to Rivers and Lake water bodies has:

- 7% good ecological status or potential;
- 38% good or high biological status;
- 88% good chemical status;
- 7% good ecological and chemical status.

The Thames Water Management Plan which covers the Cotswold Catchment has:

- 38% good ecological status or potential;
- 28% good or high biological status;
- 100% good chemical status
- 38% good ecological and chemical status.

Within the Forest of Dean there are water quality problems associated with uncontrolled discharges from former mine workings. These are often acidic and contain metals and other harmful substances that can have significant ecological impacts.

There are 6 Catchment Abstraction Plans (CAMS) which cover Gloucestershire. These detail how the Environment Agency manage water resources, existing and future abstraction licences and water availability within river catchments. The Severn Vale Abstraction Licensing Strategy (Environment Agency, February 2013) illustrates how the southern area of the Severn Vale CAMS, near Stroud and the Southern area of the Cotswolds, has limited water availability which is restricted for Groundwater. Water resources in these areas are available for less than 30% of the time.

### *Flooding in Gloucestershire*

There is a long history of serious flooding in Gloucestershire. There was a major flood in 1947 and again in 2000. In June and July 2007, very heavy and prolonged rains caused major disruption in the County. 5,000 homes and businesses were flooded and many communities cut off. 200 people had to be rescued by boat, helicopter or land rescues. Electricity was lost to 48,000 homes for two days, and the whole county came close to having no power at. Over half the homes in Gloucestershire and 7,500 businesses were without any mains water for up to 12 days - and 17 days for drinking water. Across the County, 825 homes have had to be evacuated, resulting in approximately 1,950 people (including 490 children) seeking temporary accommodation. Widespread damage to the highways infrastructure was estimated to cost £25 million to repair.

The County Council commissioned a Level 1 Assessment by *Halcrow Group Ltd* in September 2008.

More information on flooding within Gloucestershire can be found at [www.gloucestershire.gov.uk/flooding](http://www.gloucestershire.gov.uk/flooding)

### **Climatic factors**

Climate change is recognised as one of the greatest threats facing the world today. It is now widely accepted that man-made emissions of greenhouse gases are responsibly for the increase in temperatures and that temperatures are rising faster than previously thought. As shown in **Tables 3 & 4** below, the changes resulting from global warming are likely to result in warmer, drier summers and milder, wetter winters.

**Table 3: Future Seasonal Climate in the South West**

| Season | Seasonal Climate 2050s*                                       | Seasonal Climate 2080s*                                                                    |
|--------|---------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Spring | Warmer by 1.0 to 2.0°C<br>Precipitation totals similar to now | Warmer by 1.5 to 3.5°C<br>Precipitation totals similar to now                              |
| Summer | Warmer by 1.5 to 3.5°C<br>Drier by 15 to 30%                  | Warmer by 2.0 to 5.5°C<br>Drier by 25 to 55%                                               |
| Autumn | Warmer by 1.5 to 3.0°C<br>Drier by 0 to 10%                   | Warmer by 2.0 to 5.0°C<br>Drier by 5 to 15%                                                |
| Winter | Milder by 1.0 to 2.0°C<br>Wetter by 5 to 15%                  | Milder by 1.5 to 3.5°C<br>Wetter by 10 to 30%<br>Snowfall will decrease by up to 70 - 90%. |

\* The range of figures indicates Low and High Emissions scenario results.

Source: UK Climate Impacts Programme.



**Table 4: Summary of Potential Changes to the Climate of the South West by the 2050s**

| <i>Summary of Potential Changes to the Climate of the South West by the 2050s.</i> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Temperature                                                                        | <ul style="list-style-type: none"> <li>• Annual warming of 1.0 to 2.5°C (annual warming of 1.5 to 4.5°C in the 2080s)</li> <li>• Greater night-time than day-time warming in winter</li> <li>• Years as warm as 1999 (+1.2°C hotter than average) more common</li> <li>• Greater warming in summer and autumn than in winter and spring</li> <li>• Greater day-time than night-time warming in summer</li> </ul>                                                                                                                      |
| Precipitation                                                                      | <ul style="list-style-type: none"> <li>• Winters 5 to 15% wetter (winters 10 to 30% wetter by the 2080s)</li> <li>• Heavy rainfall in winter becomes more common</li> <li>• Summers as dry as 1995 (37% drier than average) become more common</li> <li>• Snowfall totals decrease significantly</li> <li>• Summers 15 to 30% drier (summers 25 to 50% drier by the 2080s)</li> <li>• Greater contrast between summer (drier) and winter (wetter) seasons</li> <li>• Winter and spring precipitation becomes more variable</li> </ul> |
| Cloud cover                                                                        | <ul style="list-style-type: none"> <li>• Reduction in summer and autumn cloud and increase in radiation</li> <li>• Small increase in winter cloud cover</li> </ul>                                                                                                                                                                                                                                                                                                                                                                    |
| Humidity                                                                           | <ul style="list-style-type: none"> <li>• Relative humidity decreases in summer</li> <li>• Specific humidity increases throughout the year</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                  |
| Soil moisture                                                                      | <ul style="list-style-type: none"> <li>• Decreases in summer</li> <li>• Slight increase in winter soil moisture</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                            |
| Storm tracks                                                                       | <ul style="list-style-type: none"> <li>• Winter depressions become more frequent including deepest ones</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                    |
| North Atlantic Oscillation                                                         | <ul style="list-style-type: none"> <li>• North Atlantic Oscillation may become more positive in the future, bringing more wet, windy and mild winters</li> </ul>                                                                                                                                                                                                                                                                                                                                                                      |
| <i>Source: UK Climate Impacts Programme.</i>                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

It is likely that such changes will have significant and far-reaching effects on the man-made and natural environment. Changes in temperature are likely to alter habitats and it is likely that many species will not be able to adapt quickly enough to survive. Recent published research indicates that there has been a decline in over-wintering birds from Arctic areas. Increasing sea temperatures are likely to alter the balance in marine species and alter the marine food chain.

Rising sea levels and wetter winters will also increase the likelihood of flooding in low-lying areas. This issue is of particular relevance in Gloucestershire with significant numbers of people living close to, or in, the floodplain of the River Severn. The Summer 2007 floods in Gloucestershire highlighted the seriousness of the issue and demonstrated that extreme summer events may also have to be contended

with. Very warm, dry summers may result in increased soil compaction which could result in increased runoff and consequently greater flood risk.

## Materials assets

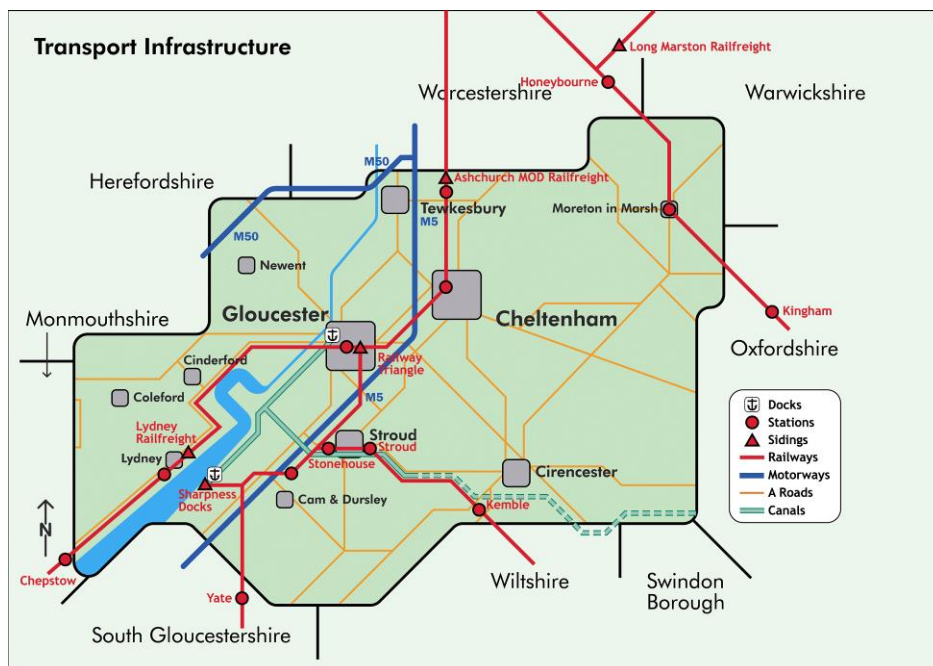
### *Motorways and major roads*

The M5 runs through the County linking, northbound, to Birmingham and the West Midlands and, to the south, to Bristol, the South West and Wales. A dual-carriageway (A417/419) provides access to Swindon and the M4 with a two-hour drive time to Heathrow, three hours to the South East and channel ports. The M50 is on the County's northern boundary.

### *Rail links*

High-speed rail services bring London Paddington and Heathrow within two hours reach. The regional network provides access to Birmingham, Bristol, Cardiff, Oxford and Swindon. Gloucestershire has railway stations at Ashchurch (Tewkesbury), Cam and Dursley, Cheltenham, Gloucester, Kemble (near Cirencester), Lydney, Moreton-in-Marsh, Stonehouse and Stroud. The rail network in Gloucestershire was reduced significantly during the Beeching era and there are now just four trunk lines. The mainline bisects Gloucestershire north to south with tracks from Gloucester running to South Wales and from Stonehouse towards the South East. A line passes through Moreton-in-Marsh in the north east of the County. The County Council and District and Parish councils have supported the building and re-opening of stations at Ashchurch (Tewkesbury), and Cam & / Dursley.

**Figure 11: Transport Infrastructure in Gloucestershire**



### *Airports*

Gloucestershire Airport is centrally located between Gloucester and Cheltenham providing facilities for air transport, executive jets, helicopters, charter flights, flying schools, aero engineering and maintenance. RAF Fairford is a significant material asset. It is designated as a TransOceanic Abort Landing site for NASA's Space Shuttle with its 3km long runway and NASA-trained fire and medical crews stationed at the base.

### *Docks*

Gloucester Docks in the heart of the city is now a focal point for water-based leisure activities. Two working dry docks continue to provide ship repair and refit facilities with access to the sea through the Gloucester and Sharpness Canal. Sharpness Docks on the Bristol Channel provides extensive cargo-handling facilities and port-related services accommodating vessels up to 6,000 dead weight tonnes. In terms of waterborne transport potential, at present the majority of traffic on the river Severn consists of privately owned small craft, although in early 2005 movement of sand and gravel took place from Ryall Quarry in Worcestershire to Gloucester. The river and the Gloucester and Sharpness canal provide

Gloucestershire with the possibility to develop sustainable waterborne freight transport. This should be encouraged, particularly as other parts of the UK (London in particular) are very successfully transporting large volumes of waste by water.

#### *Public rights of way*

Gloucestershire has almost 3,500 miles of footpaths, bridleways and green lanes that make up its public rights of way network (PROW). They are an important landscape element in both rural and urban areas of the County, playing an important part in the daily lives of many people who use them for leisure, exercise and the up-keep of health, or as part of their daily routine. Nationally 15 per cent of all visitors to the countryside go walking, which brings many benefits from supporting the rural economy to improving the health and well being of participants. Three 'National Trails' run through Gloucestershire namely; the Thames Path, the Cotswold Way and Offa's Dyke Path. The PROW network is managed by the County Council who maintain a definitive map of all paths and rights of way in the County. Volunteers and local conservation groups assist in the maintenance of PROW.

#### *Tourist assets*

The landscape and historic villages and towns of Gloucestershire are clearly a major material asset. During 2011 Gloucestershire Cathedral was the 7th top free attraction within in the South West in terms of visitor numbers.

### **Cultural heritage including architectural and archaeological heritage**

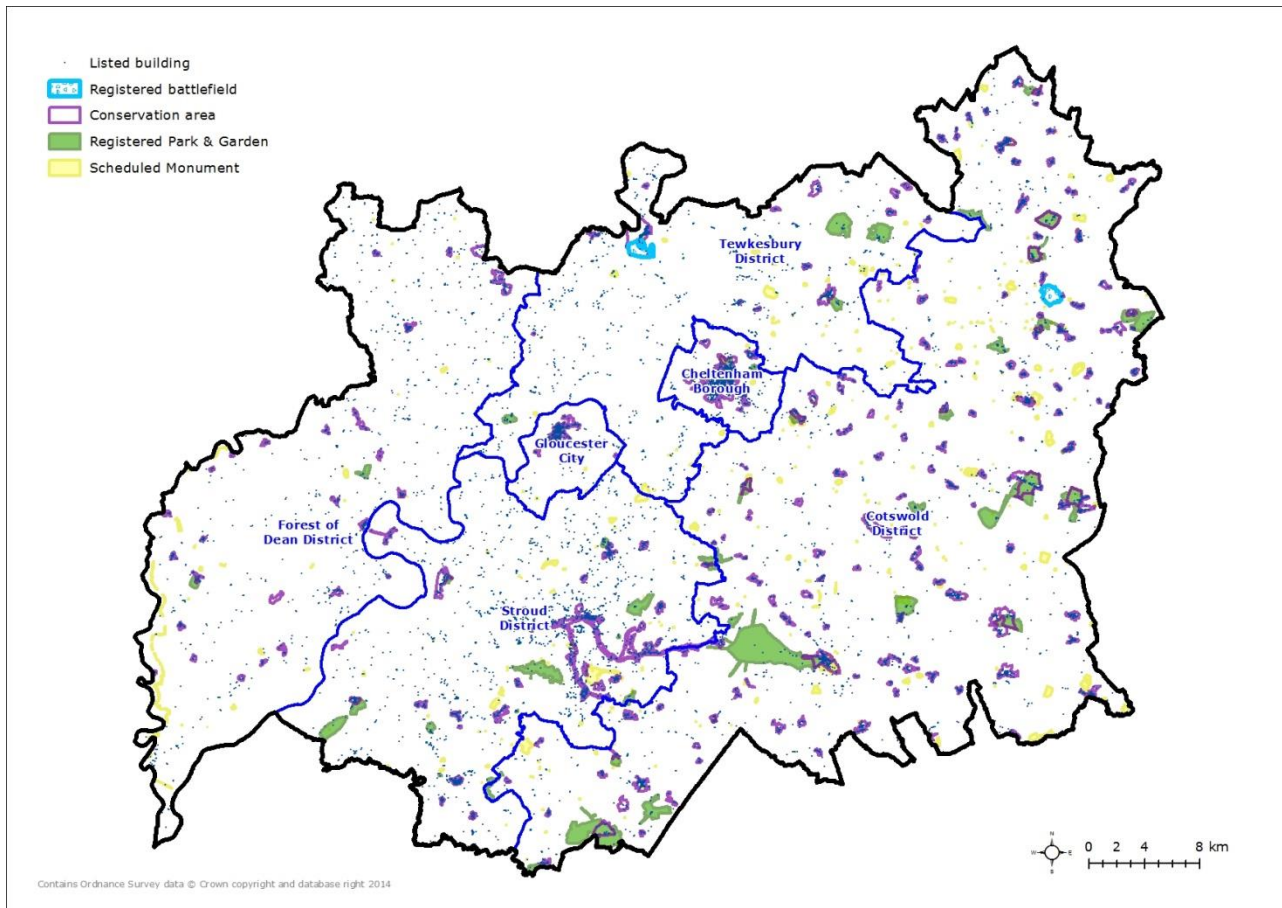
The historic environment of the County has been formed as a result of the activities of human communities over many thousands of years in clearing, farming and settling the landscape. There is extensive evidence of the past in the form of prehistoric settlement and burial sites, Roman towns and villas, medieval churches and other features of more local importance. The historic legacy of agriculture, industry, architecture and social organisation makes a significant contribution to the distinctive landscapes found in Gloucestershire.

There are around 18,000 archaeological sites recorded in the Gloucestershire Sites and Monuments Record. Approximately 521 of these are Scheduled Ancient Monuments of national importance. Archaeological investigations continue to reveal many sites of historical importance in all areas of the County. These range from Neolithic and Iron Age sites, through extensive Roman and Romano British Settlements, important medieval sites, Regency and Georgian buildings, and the legacy of past industrial activities.

Conservation areas and the register of listed buildings held by district councils affords protection to areas of particular architectural or historic interest. The Cotswold district has by far the highest number of conservation areas of any district local authority in Great Britain at 144. There are approximately 100 buildings within the County which are on the Heritage At Risk Register (2011).

Gloucestershire's historic environment designations can be seen on **Figure 12 below**.

**Figure 12: Gloucestershire's historic environment designations.**



Gloucestershire's natural and historic environment makes an important contribution to the local economy in terms of its tourism value. Both minerals and waste development can have major impacts on their surroundings. Great care must be taken to ensure that such development does not intrude on the archaeological legacy of the County and does not result in damage to their wider settings, or alter their relationship with the wider rural area around them.

Even where visible archaeological remains and elements of the historic environment are not destroyed by minerals development, their setting can be compromised either by the proximity of surface workings themselves or by unsympathetic structures or developments to the infrastructure supporting both surface and below ground minerals operations.

Increased levels of dust produced by minerals development may affect the setting of archaeological and historically significant sites even where these do not impact directly on the monument or structure itself.

Unsympathetic landscape restoration following minerals development can also have a major impact on the setting of surviving archaeological or historically significant remains and may significantly reduce the historic character and legibility of the landscape in which these are sited.

(For information on archaeology and the historic environment see Joint Technical Evidence Paper WCS-MCS 6 Archaeology and the Historic Environment

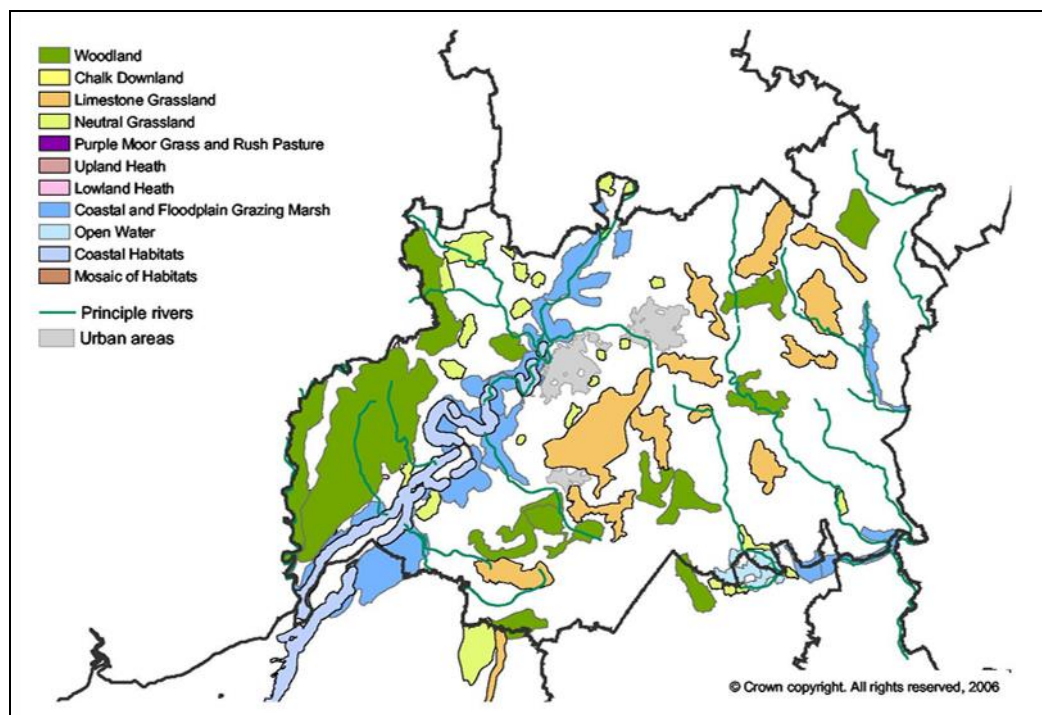
<http://www.gloucestershire.gov.uk/extra/article/107668/Evidence-Base-for-the-MCS>)

## Landscape

Gloucestershire's landscape is characterised by three broad distinct areas. From west to east these are: the Forest of Dean, the Severn Vale and the upland limestone areas of the Cotswolds and Stroud. The Upper Thames Valley, (although a smaller area) may also be regarded as relatively distinct in terms of its landscape character and features. In terms of a more detailed landscape character assessment, the County is divided into 33 distinct areas. The Gloucestershire Nature Map, launched in the Spring of 2008,

identifies the main priority habitats in the County as: Woodland, Unimproved Limestone Grassland, Unimproved Neutral Grassland, Lowland Wetland Grassland and Heathland/Acid Grassland. (See below).

**Figure 13: Gloucestershire Nature Map**



From: <http://gloucestershirebap.org.uk/actionplan/nature-map.php>

The different geological formations and soils of each area have determined the nature of the vegetation within the County as well as its building styles and settlement patterns. Many local industries have also left their particular mark on the landscape.

There are five National Character Areas (NCA) within Gloucestershire. These are based on natural lines within the landscape and not on administrative boundaries. The five are Malvern Hills, Forest of Dean and Lower Wye, Severn and Avon Vales, Cotswolds, and Bristol, Avon Valleys and Ridges.

The Forest of Dean is situated on an upland trough of old red sandstone that has been overlaid twice by carboniferous limestone, and then by millstone grit containing iron ores and coal measures. It lies in a hilly area between the Rivers Wye and Severn and is still heavily forested with constrained access.

The Wye Valley, on the Forest of Dean's western boundary, is a designated Area of Outstanding Natural Beauty and contains some of the most important semi-natural woodland in Britain and some of the scarcest trees. The River Wye itself is also important as a largely natural system of high water quality and conservation interest. Settlement in the Forest has tended to be linear, following the watercourses and coal measures and villages are built of the grey-brown and red stone local to the area.

The Forest of Dean is one of England's largest ancient forests containing over 11,000 hectares of woodland. This area forms the largest single area of public access in the County, attracting over 1.5 million visits per year. The area of the Royal Forest still contains extensive areas of old oak woods with abundant flora and fauna in a variety of different habitats.

The area also has a range of habitats on the coal measures and sandstone, which are scarce in the County as a whole. The historic industries of tin mining and coal mining have left local features such as abandoned spoil heaps and dismantled railways that, now regenerated, give distinctive character. 'Free miners' continue to operate very small coal mines in the area and there are many kilometres of old underground mine workings and extensive natural cave systems which have contributed to a nationally important population of rare lesser and greater horseshoe bats.

The Severn Vale is an area created by the floodplain of the River Severn between the foot of the Cotswold escarpment and the hilly area of the Forest of Dean. It is this area of the County that is most urbanised with Cheltenham and Gloucester and major transport routes concentrated through it. The



designated Green Belt between Gloucester and Cheltenham has been successful in defining limits to urban areas, but in recent years it has come under increasing pressure in terms of the need for sustainable communities and efficient transport networks.

The Severn Vale is of particular significance for bird life, with several sites in the floodplain of the River Severn seasonally providing ideal conditions for wintering wildfowl. As an estuarine system the Severn Estuary is an internationally important site.

The area known as 'The Cotswolds' contains a number of different landscape character areas. The dramatic edge landscape of the main escarpment runs south west to north east and is very steep in places, resulting in a strong visual impact. The many indentations within the escarpment run into the Cotswolds. On the north west side of the escarpment are five hills known as outliers. Around Stroud and Winchcombe the landscape is more incised. In the northern part of the Cotswolds there is an area of high wold where the topography is softer with smaller and narrower valleys and broad plateau tops, which merge into a dip slope in the middle of the Cotswolds.

The Oolitic limestone belt from which the Cotswolds are formed has also resulted in unimproved limestone grassland habitat of great wildlife value. The grassland of commons, valleys and scarp contain ancient turf formed by grazing over many centuries and now support an abundance of attractive wild flowers and butterflies. They are also home to one of the prime areas of beech woodland in Britain. Beech woods are habitats for many scarce species. In addition, the unmistakable vernacular of Cotswold villages and towns has made it an international target for recreation and tourism.

The Upper Thames Valley, to the south / south east of the Cotswolds is dominated by the physical impacts of sand and gravel extraction. The development of recreation and natural areas in the Cotswold Water Park provide an excellent example of sensitive restoration of mineral workings. The lakes and wetland areas are gaining in wildlife importance, and increasing in national and international recognition.

### **The interrelationship between the above factors**

There are obviously numerous and complex inter-relationships between all the baseline issues and factors that have been considered in this section of the report. For instance the protection, preservation and enhancement of Gloucestershire's natural environment – its biodiversity, landscape, flora, fauna, soil /air /water quality has a direct relationship with people's quality of life and the benefit to the local economy in terms of the numbers of tourists who visit the County. Population increases will have a significant impact in coming years. Gloucestershire may see pressure for houses and services having an impact on the environment.

In terms of mineral development a balance has to be struck between protecting Gloucestershire's environment, the amenity of its residents and visitors and providing minerals which are needed by society and from which we all derive benefit. Progress needs to be made in reducing the levels of primary minerals that are extracted, through the reduction, reuse and recycling of appropriate materials.

Arguably, of all the issues dealt with in this review of baseline, climate change has the greatest potential to have wide-spread and long lasting social, economic and environmental impacts.

**Appendix 5**  
Policy appraisal matrices

### Compatibility of Proposed Vision and Strategic Priorities with SA objectives

|                                                                 | Spatial Vision | 1. Reuse & Recycling | 2. Provision & Supply | 3. The Environment | 4. People | 5. Reclamation | 6. Resource Management | 7. Transport |
|-----------------------------------------------------------------|----------------|----------------------|-----------------------|--------------------|-----------|----------------|------------------------|--------------|
| <b>Social</b>                                                   |                |                      |                       |                    |           |                |                        |              |
| 1. Health and wellbeing                                         | +              | +                    | 0                     | 0                  | +         | +              | 0                      | +            |
| 2. Amenity of local communities                                 | +              | +                    | 0                     | 0                  | +         | +              | 0                      | +            |
| <b>Economic</b>                                                 |                |                      |                       |                    |           |                |                        |              |
| 3. Sustainable economic development                             | ++             | 0                    | ++                    | 0                  | 0         | +              | 0                      | 0            |
| 4. Employment opportunities                                     | ++             | 0                    | ++                    | 0                  | +         | +              | 0                      | +            |
| 5. Safety of commercial or military aerodromes                  | +              | 0                    | 0                     | 0                  | +         | +              | 0                      | 0            |
| 6. Conservation of minerals resources                           | +              | ++                   | +/-                   | 0                  | 0         | 0              | ++                     | 0            |
| <b>Environmental</b>                                            |                |                      |                       |                    |           |                |                        |              |
| 7. Biodiversity                                                 | ++             | +/-                  | +/-                   | ++                 | 0         | +              | 0                      | 0            |
| 8. Landscape                                                    | ++             | +/-                  | +/-                   | ++                 | 0         | +/-            | 0                      | 0            |
| 9. Restoration of mineral sites                                 | ++             | +                    | 0                     | 0                  | 0         | ++             | +                      | 0            |
| 10. Material, cultural and recreational assets                  | +              | 0                    | +/-                   | +                  | +         | +              | 0                      | +            |
| 11. Geodiversity                                                | ++             | 0                    | +/-                   | ++                 | 0         | +              | 0                      | 0            |
| 12. Historic environment, heritage assets and their setting     | +              | 0                    | +/-                   | +                  | 0         | +              | 0                      | 0            |
| 13. Flooding                                                    | +              | 0                    | +/-                   | +/-                | 0         | +/-            | 0                      | 0            |
| 14. Soil / land quality                                         | +              | +                    | +/-                   | +                  | 0         | +              | +                      | 0            |
| 15. Air quality                                                 | +              | +/-                  | +/-                   | +                  | 0         | +/-            | 0                      | +            |
| 16. Water quality and quantity.                                 | +              | 0                    | +/-                   | +                  | 0         | +/-            | 0                      | 0            |
| 17. Impacts of lorry traffic on the environment and communities | +              | +/-                  | +/-                   | +                  | 0         | +/-            | 0                      | +            |
| 18. Climate Change                                              | +              | +/-                  | +/-                   | +                  | 0         | +              | 0                      | +            |



## Proposed Policy on Presumption in Favour of Sustainable Development

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | +        | This policy should help promote sustainable communities and improve health and wellbeing as it reflects the NPPF's presumption in favour of sustainable development, and looks to secure development that improves social conditions in the area. The policy also requires that planning applications are in accordance with other policies in the Minerals Plan and relevant neighbourhood plans. Therefore, it is likely to have a minor positive effect on this objective.               |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | +        | This policy should help safeguard the amenity of local communities as it reflects the NPPF's presumption in favour of sustainable development, and looks to secure development that improves social conditions in the area. The policy also requires that planning applications are in accordance with other policies in the Minerals Plan and relevant neighbourhood plans. Therefore, it is likely to have a minor positive effect on this objective.                                     |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                                                  | +        | This policy should help promote sustainable economic development as it reflects the NPPF's presumption in favour of sustainable development, and looks to secure development that improves economic conditions in the area. The policy also requires that planning applications are in accordance with other policies in the Minerals Plan and relevant neighbourhood plans. Therefore, it is likely to have a minor positive effect on this objective.                                     |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                                             | +        | This policy should help provide employment opportunities as it reflects the NPPF's presumption in favour of sustainable development, and looks to secure development that improves economic conditions in the area. The policy also requires that planning applications are in accordance with other policies in the Minerals Plan and relevant neighbourhood plans. Therefore, it is likely to have a minor positive effect on this objective.                                             |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                                        | +        | This policy should help safeguard the safety of commercial and military aerodromes as it reflects the NPPF's presumption in favour of sustainable development, and looks to secure development that improves environmental and economic conditions in the area. The policy also requires that planning applications are in accordance with other policies in the Minerals Plan and relevant neighbourhood plans. Therefore, it is likely to have a minor positive effect on this objective. |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates                                                                            | +        | This policy should help conserve mineral resources from inappropriate development as it reflects the NPPF's presumption in favour of sustainable development, and looks to secure development that improves environmental and economic conditions in the area.                                                                                                                                                                                                                              |

| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| and other minerals sufficient for the needs of society.                                                                                                                                                            |          | The policy also requires that planning applications are in accordance with other policies in the Minerals Plan and relevant neighbourhood plans. Therefore, it is likely to have a minor positive effect on this objective.                                                                                                                                                                                                                                                                                                            |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                                                               | +        | This policy should help protect, conserve, and enhance biodiversity as it reflects the NPPF's presumption in favour of sustainable development, and looks to secure development that improves environmental conditions in the area. The policy also requires that planning applications are in accordance with other policies in the Minerals Plan and relevant neighbourhood plans. Therefore, it is likely to have a minor positive effect on this objective.                                                                        |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | +        | This policy should help protect, conserve, and enhance the landscape in Gloucestershire as it reflects the NPPF's presumption in favour of sustainable development, and looks to secure development that improves environmental conditions in the area. The policy also requires that planning applications are in accordance with other policies in the Minerals Plan and relevant neighbourhood plans. Therefore, it is likely to have a minor positive effect on this objective.                                                    |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | This policy should help to restore mineral sites to a high standard as it reflects the NPPF's presumption in favour of sustainable development, and looks to secure development that improves environmental conditions in the area. The policy also requires that planning applications are in accordance with other policies in the Minerals Plan and relevant neighbourhood plans. Therefore, it is likely to have a minor positive effect on this objective.                                                                        |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | +        | This policy should help protect, conserve, and enhance Gloucestershire's material, cultural, and recreational assets as it reflects the NPPF's presumption in favour of sustainable development, and looks to secure development that improves economic, social, and environmental conditions in the area. The policy also requires that planning applications are in accordance with other policies in the Minerals Plan and relevant neighbourhood plans. Therefore, it is likely to have a minor positive effect on this objective. |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | +        | This policy should help protect, conserve, and enhance geodiversity as it reflects the NPPF's presumption in favour of sustainable development, and looks to secure development that improves environmental conditions in the area. The policy also requires that planning applications are in accordance with other policies in the Minerals Plan and relevant neighbourhood plans. Therefore, it is likely to have a minor positive effect on this objective.                                                                        |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                   | +        | This policy should help protect, conserve, and enhance the historic environment as it reflects the NPPF's presumption in favour of sustainable development, and looks to secure development that improves environmental conditions in the area. The policy also                                                                                                                                                                                                                                                                        |

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                        | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                       |          | requires that planning applications are in accordance with other policies in the Minerals Plan and relevant neighbourhood plans. Therefore, it is likely to have a minor positive effect on this objective.                                                                                                                                                                                                                                                               |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                                                                                                        | +        | This policy should help prevent flooding as it reflects the NPPF's presumption in favour of sustainable development, and looks to secure development that improves environmental conditions in the area. The policy also requires that planning applications are in accordance with other policies in the Minerals Plan and relevant neighbourhood plans. Therefore, it is likely to have a minor positive effect on this objective.                                      |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                                                                                                    | +        | This policy should help protect and enhance soil quality as it reflects the NPPF's presumption in favour of sustainable development, and looks to secure development that improves environmental conditions in the area. The policy also requires that planning applications are in accordance with other policies in the Minerals Plan and relevant neighbourhood plans. Therefore, it is likely to have a minor positive effect on this objective.                      |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                                                                              | +        | This policy should help protect and enhance air quality as it reflects the NPPF's presumption in favour of sustainable development, and looks to secure development that improves environmental conditions in the area. The policy also requires that planning applications are in accordance with other policies in the Minerals Plan and relevant neighbourhood plans. Therefore, it is likely to have a minor positive effect on this objective.                       |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                            | +        | This policy should help protect and enhance water quality as it reflects the NPPF's presumption in favour of sustainable development, and looks to secure development that improves environmental conditions in the area. The policy also requires that planning applications are in accordance with other policies in the Minerals Plan and relevant neighbourhood plans. Therefore, it is likely to have a minor positive effect on this objective.                     |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels | +        | This policy should help reduce the adverse impacts of mineral related traffic as it reflects the NPPF's presumption in favour of sustainable development, and looks to secure development that improves environmental conditions in the area. The policy also requires that planning applications are in accordance with other policies in the Minerals Plan and relevant neighbourhood plans. Therefore, it is likely to have a minor positive effect on this objective. |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                        | +        | This policy should help reduce Gloucestershire's contribution to, and help adapt to climate change, as it reflects the NPPF's presumption in favour of sustainable                                                                                                                                                                                                                                                                                                        |

| SA Objective and Sub Questions | SA Score | Justification                                                                                                                                                                                                                                                                                                                |
|--------------------------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                |          | development, and looks to secure development that improves environmental conditions in the area. The policy also requires that planning applications are in accordance with other policies in the Minerals Plan and relevant neighbourhood plans. Therefore, it is likely to have a minor positive effect on this objective. |

### Proposed Policy for Mineral Safeguarding Areas

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | +/-?     | <p>The proposed policy states that “unless applicants make provision for the prior extraction of the mineral, planning permission for other development that would result in the sterilisation of minerals in the defined Mineral Safeguarding Area will not be permitted unless: the mineral can be extracted to the satisfaction of the MPA without unacceptable community impacts prior to the incompatible development taking place”. The Mineral Safeguarding Areas may therefore potentially restrict non-mineral developments that could otherwise have a negative effect on the health and wellbeing of people. However, the Safeguarding Areas may lead to more mineral extraction activities that could have a detrimental impact on the health and wellbeing of people. It must be emphasised, however, that the process of safeguarding does not mean that extraction will be automatically allowed or that non mineral development cannot take place.</p> <p>Overall, a mixed minor positive/minor negative effect is likely for this SA objective. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of proposals within Safeguarding Areas, which will not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on communities, and on the health and wellbeing of people living and working in Gloucestershire, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the proposed policy when determining proposals.</p> |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | +/-?     | <p>The proposed policy states that “unless applicants make provision for the prior extraction of the mineral, planning permission for other development that would result in the sterilisation of minerals in the defined Mineral Safeguarding Area will not be permitted unless: the mineral can be extracted to the satisfaction of the MPA without unacceptable community impacts prior to the incompatible development taking place”. The Mineral Safeguarding Areas may therefore potentially restrict non-mineral developments that could otherwise have a negative effect on the amenity of local communities. However, the Safeguarding Areas may lead to more mineral extraction activities that could have a detrimental impact on local amenity. It must be emphasised, however, that the process of safeguarding does not mean that extraction will be automatically allowed or that non mineral development cannot take place.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

| SA Objective and Sub Questions                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                          |          | <p>Overall, a mixed minor positive/minor negative effect is likely for this SA objective. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of proposals within Safeguarding Areas, which will not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on the amenity of local communities, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Proposed Policy when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds. | ++/-     | <p>Minerals are essential to support sustainable economic growth and our quality of life. It is therefore important that there is a sufficient supply of material to provide the infrastructure, buildings, energy and goods that the country needs, including locally for Gloucestershire. Mineral Safeguarding Areas should help safeguard mineral resources from sterilisation and may therefore have a positive effect on economic development related to minerals. However, as non-mineral developments may potentially be restricted within Mineral Safeguarding Areas, the proposed policy could also have negative effects on economic development, as Safeguarding Areas may reduce opportunities for other types of development. It must be emphasised, however, that the process of safeguarding does not mean that extraction will be automatically allowed or that non mineral development cannot take place. Therefore, overall this policy is likely to have mixed significant positive/minor negative effects on this SA objective.</p>   |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.            | +/-      | <p>Minerals are essential to support sustainable economic growth. It is therefore important that there is a sufficient supply of material to provide the infrastructure, buildings, energy and goods that the country needs, including locally for Gloucestershire. Mineral Safeguarding Areas should help safeguard mineral resources from sterilisation and may therefore have a positive effect on economic development related to minerals, which in turn will have positive effects on employment opportunities associated with economic development. However, as non-mineral developments may potentially be restricted within Mineral Safeguarding Areas, the proposed policy could also have negative effects on employment opportunities. It must be emphasised, however, that the process of safeguarding does not mean that extraction will be automatically allowed or that non mineral development cannot take place. Therefore, overall this policy is likely to have mixed minor positive/minor negative effects on this SA objective.</p> |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                       | +/-?     | <p>Mineral Safeguarding Areas may lead to more mineral extraction activities, including sand and gravel extracted in the Cotswolds Water Park which is located within and in close proximity to the safeguarding zone for RAF Fairford. Therefore, the proposed</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

| SA Objective and Sub Questions                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                                                                                                                                                                        |          | <p>policy could have minor negative effects on the safety of commercial or military aerodromes due to the potential for birds associated with water based site restoration, to provide a hazard to aircraft. However, the proposed policy states that “unless applicants make provision for the prior extraction of the mineral, planning permission for other development that would result in the sterilisation of minerals in the defined Mineral Safeguarding Area will not be permitted unless: the mineral can be extracted to the satisfaction of the MPA without unacceptable environmental impacts prior to the incompatible development taking place”. Therefore, overall the proposed policy could have mixed minor positive/minor negative effects on this SA objective. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of proposals within Safeguarding Areas, which will not be known until the planning application stage. Furthermore, it must be emphasised that the process of safeguarding does not mean that extraction will be automatically allowed.</p> <p>There are also policies that will mitigate the effects on the safety of aerodromes, such as the Proposed Policy for Safeguarding Aerodromes. Proposed Policies such as these will be used alongside the Proposed Policy when determining proposals.</p> |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | ++       | <p>The proposed policy is likely to have significant positive effects on this SA objective, as the policy ensures that mineral resources will be protected from unnecessary sterilisation by other development, whilst not creating a presumption that resources defined in MSAs will be worked, and ensures that minerals resources will be adequately and effectively considered in all land-use planning decisions.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | +?       | <p>The proposed policy states that “unless applicants make provision for the prior extraction of the mineral, planning permission for other development that would result in the sterilisation of minerals in the defined Mineral Safeguarding Area will not be permitted unless: the mineral can be extracted to the satisfaction of the MPA without unacceptable environmental impacts prior to the incompatible development taking place”. Mineral Safeguarding Areas supported by the proposed policy may have minor positive effects on biodiversity, as the potential prevention of non-mineral development in Safeguarding Areas that would prejudice mineral workings may prevent development that could harm biodiversity. Also, should areas within Safeguarding Areas be used for mineral extraction in the future, long-term biodiversity benefits could occur as a result of the restoration of mineral sites. It must be emphasised, however, that the process of safeguarding does not mean that extraction will be automatically allowed or that non mineral development cannot take place. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of proposals within Safeguarding Areas, which will not be known until the planning application stage.</p>                                                                      |

| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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|                                                                                                                                                                                                                    |          | There are also policies that will mitigate the effects on biodiversity, such as the Proposed Policy for Biodiversity and Geodiversity. Proposed Policies such as these will be used alongside the Proposed Policy when determining proposals.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | +/-?     | <p>The proposed policy states that “unless applicants make provision for the prior extraction of the mineral, planning permission for other development that would result in the sterilisation of minerals in the defined Mineral Safeguarding Area will not be permitted unless: the mineral can be extracted to the satisfaction of the MPA without unacceptable environmental impacts prior to the incompatible development taking place”. Mineral Safeguarding Areas supported by the proposed policy may have minor positive effects on landscape, as the potential prevention of non-mineral development in Safeguarding Areas that would prejudice mineral workings may prevent development that could negatively impact on the landscape. However, the Safeguarding Areas may lead to more mineral extraction activities (e.g. where the mineral needs to be worked before non-mineral development can take place) that could have a detrimental impact on the landscape. It must be emphasised, however, that the process of safeguarding does not mean that extraction will be automatically allowed or that non mineral development cannot take place. Overall, a mixed effect, minor positive/minor negative is likely for this SA objective. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of proposals within Safeguarding Areas, which for some will not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on landscape, such as the Proposed Landscape Policy. Proposed Policies such as these will be used alongside the Proposed Policy when determining proposals.</p> |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +?       | <p>The proposed policy states that “unless applicants make provision for the prior extraction of the mineral, planning permission for other development that would result in the sterilisation of minerals in the defined Mineral Safeguarding Area will not be permitted unless: the mineral can be extracted to the satisfaction of the MPA without unacceptable environmental impacts prior to the incompatible development taking place”. Mineral Safeguarding Areas supported by the proposed policy may potentially restrict non-mineral developments that may not be able to be restored to such a high standard, or be able to provide benefits to conservation and biodiversity enhancement as well as mineral sites. Furthermore, Safeguarding Areas may lead to more mineral extraction activities (e.g. where the mineral needs to be worked before non-mineral development can take place) that could provide benefits via site restoration. Therefore, minor positive effects are expected for this SA objective. It must be emphasised, however,</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |



| SA Objective and Sub Questions                                                                    | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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|                                                                                                   |          | <p>that the process of safeguarding does not mean that extraction will be automatically allowed or that non mineral development cannot take place. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of proposals within Safeguarding Areas, which will not be known until the planning application stage.</p> <p>There are also policies that will support the restoration of mineral sites to a high standard, such as the Proposed Restoration Policy. Proposed Policies such as these will be used alongside the Proposed Policy when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets. | +/-?     | <p>Mineral Safeguarding Areas supported by the proposed policy may potentially restrict non-mineral developments that could otherwise have a negative effect on Gloucestershire's material, cultural and recreational assets (e.g. Public Rights of Way). However, the Safeguarding Areas may lead to more mineral extraction activities (e.g. where the mineral needs to be worked before non-mineral development can take place) that could have a detrimental impact on these assets. It must be emphasised, however, that the process of safeguarding does not mean that extraction will be automatically allowed or that non mineral development cannot take place. Overall, a mixed effect, minor positive/minor negative is likely for this SA objective. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of proposals within Safeguarding Areas, which will not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on Gloucestershire's material, cultural and recreational assets, such as the Proposed Policy for Public Rights of Way. Proposed Policies such as these will be used alongside the Proposed Policy when determining proposals.</p> |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                              | ++?      | <p>Mineral Safeguarding Areas should have a significant positive effect with regard to the protection of geodiversity, as safeguarding minerals is likely to protect minerals that may be accessed for extraction, and therefore may be preserved and be accessible for study and enjoyment in the future.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.  | +/-?     | <p>Mineral Safeguarding Areas supported by the proposed policy may potentially restrict non-mineral developments that would otherwise have a negative effect on the historic environment, heritage assets and their setting. However, the Safeguarding Areas may lead to more mineral extraction activities (e.g. where the mineral needs to be worked before non-mineral development can take place) that would have a detrimental impact</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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|                                                                                                                                                                                                                                                                                                                                                                        |          | <p>on the historic environment. It must be emphasised, however, that the process of safeguarding does not mean that extraction will be automatically allowed or that non mineral development cannot take place. Overall, a mixed effect, minor positive/minor negative is likely for this SA objective. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of proposals within Safeguarding Areas, which will not be known until the planning application stage.</p> <p>There are policies that aim to protect and mitigate effects on the Historic Environment, such as the Proposed Policy for the Historic Environment. Proposed Policies such as these will be used alongside the Proposed Policy when determining proposals.</p>                                                                                                                                                                                                                                                                           |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                                                                                                                                                                         | 0        | Flooding is unlikely to be affected by the Proposed Policy for Mineral Safeguarding Areas, therefore no effect is expected for this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                                                                                                                                                                     | 0        | Soil/land quality is unlikely to be affected by the Proposed Policy for Mineral Safeguarding Areas, therefore no effect is expected for this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                                                                                                                                               | 0        | Air quality is unlikely to be affected by the Proposed Policy for Mineral Safeguarding Areas, therefore no effect is expected for this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                                                                                             | 0        | Water quality and quantity is unlikely to be affected by the Proposed Policy for Mineral Safeguarding Areas, therefore no effect is expected for this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as: <ul style="list-style-type: none"> <li>a) reducing the need to travel</li> <li>b) promoting more sustainable means of transport e.g. by rail or water</li> <li>c) sensitive lorry routing</li> <li>d) the use of sustainable alternative fuels</li> </ul> | +/-?     | <p>The proposed policy states that “unless applicants make provision for the prior extraction of the mineral, planning permission for other development that would result in the sterilisation of minerals in the defined Mineral Safeguarding Area will not be permitted unless: the mineral can be extracted to the satisfaction of the MPA without unacceptable community or environmental impacts prior to the incompatible development taking place”. Mineral Safeguarding Areas supported by the proposed policy may potentially restrict non-mineral developments that could otherwise have a negative effect on the environment and communities due to potential adverse impacts of lorry traffic. However, the Safeguarding Areas may lead to more mineral extraction activities (e.g. where the mineral needs to be worked before non-mineral development can take place) that could have a detrimental impact due to the adverse impacts of lorry traffic. Overall, a mixed effect, minor positive/minor negative is likely for this SA objective. It must be</p> |

| SA Objective and Sub Questions                                 | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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|                                                                |          | <p>emphasised, however, that the process of safeguarding does not mean that extraction will be automatically allowed or that non mineral development cannot take place. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of proposals within Safeguarding Areas, which will not be known until the planning application stage.</p> <p>There are policies that aim to mitigate traffic impacts and support sustainable transport, such as the Proposed Policy for Sustainable Transport. Proposed Policies such as these will be used alongside the Proposed Policy when determining proposals.</p> |
| 18. To reduce contributions to and to adapt to Climate Change. | 0        | Climate change is unlikely to be affected by the Proposed Policy for Mineral Safeguarding Areas, therefore no effect is expected for this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

### Proposed Standing Advice for implementation of the Policy for Mineral Safeguarding Areas

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | +/-?     | <p>The Proposed Standing Advice will ensure that the Policy for Mineral Safeguarding Areas is effectively implemented and adhered to. The Safeguarding Areas may therefore potentially restrict non-mineral developments that could otherwise have a negative effect on the health and wellbeing of people. However, the Safeguarding Areas may lead to more and/or the continuation of mineral activities that could have a detrimental impact on the health and wellbeing of people. It must be emphasised, however, that the process of safeguarding does not mean that extraction will be automatically allowed or that non mineral development cannot take place.</p> <p>Overall, a mixed minor positive/minor negative effect is likely for this SA objective. However, effects would be uncertain as the potential for effects will depend on the exact nature and design of proposals within Safeguarding Areas, which for some will not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on communities, and on the health and wellbeing of people living and working in Gloucestershire, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Standing Advice and Policy for Mineral Safeguarding Areas when determining proposals.</p> |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | +/-?     | <p>The Proposed Standing Advice will ensure that the Policy for Mineral Safeguarding Areas is effectively implemented and adhered to. The Safeguarding Areas may therefore potentially restrict non-mineral developments that could otherwise have a negative effect on the amenity of local communities. However, the MSAs may lead to more and/or the continuation of mineral activities that could have a detrimental impact on local amenity. It must be emphasised, however, that the process of safeguarding does not mean that extraction will be automatically allowed or that non mineral development cannot take place.</p> <p>Overall, a mixed minor positive/minor negative effect is likely for this SA objective. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of proposals within Safeguarding Areas, which for some will not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on the amenity of local communities, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Standing Advice and Policy for Mineral</p>                                                                                                                                             |

| SA Objective and Sub Questions                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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|                                                                                                                                          |          | Safeguarding Areas when determining proposals.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds. | +/-      | Minerals are essential to support sustainable economic growth and our quality of life. It is therefore important that there is a sufficient supply of material to provide the infrastructure, buildings, energy and goods that the country needs, including locally for Gloucestershire. The proposed standing advice will ensure that the Mineral Safeguarding Areas are effectively implemented and adhered to. The Safeguarding Areas should help safeguard mineral resources from sterilisation and ancillary facilities from conflicting land uses, and may therefore have a positive effect on economic development related to minerals. However, as non-mineral developments may potentially be restricted within Mineral Safeguarding Areas, the proposed policy could also have negative effects on economic development, as Safeguarding Areas may reduce opportunities for other types of development. It must be emphasised, however, that the process of safeguarding does not mean that extraction will be automatically allowed or that non mineral development cannot take place. Therefore, overall this Standing Advice is likely to have mixed significant positive/minor negative effects on this SA objective.   |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.            | +/-      | Minerals are essential to support sustainable economic growth. It is therefore important that there is a sufficient supply of material to provide the infrastructure, buildings, energy and goods that the country needs, including locally for Gloucestershire. The proposed standing advice will ensure that the Mineral Safeguarding Areas are effectively implemented and adhered to. The Safeguarding Areas should help safeguard mineral resources from sterilisation and ancillary facilities from conflicting land uses, and may therefore have a positive effect on economic development related to minerals, which in turn will have positive effects on employment opportunities associated with economic development. However, as non-mineral developments may potentially be restricted within Mineral Safeguarding Areas, the proposed policy could also have negative effects on employment opportunities. It must be emphasised, however, that the process of safeguarding does not mean that extraction will be automatically allowed or that non mineral development cannot take place. Therefore, overall this Standing Advice is likely to have mixed minor positive/minor negative effects on this SA objective. |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                       | +/-?     | The Proposed Standing Advice will ensure that the Mineral Safeguarding Areas are effectively implemented and adhered to. The Safeguarding Areas implemented by the Standing Advice may lead to more mineral extraction activities, including sand and gravel extracted in the Cotswolds Water Park which is located within and in close proximity to the safeguarding zone for RAF Fairford. Therefore, the proposed policy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

| SA Objective and Sub Questions                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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|                                                                                                                                                                        |          | <p>could have minor negative effects on the safety of commercial or military aerodromes due to the potential for birds, due to water based site restoration, to provide a hazard to aircraft. However, the Proposed Policy for Mineral Safeguarding Areas, implemented by this Standing Advice states that “unless applicants make provision for the prior extraction of the mineral, planning permission for other development that would result in the sterilisation of minerals in the defined Mineral Safeguarding Area will not be permitted unless: the mineral can be extracted to the satisfaction of the MPA without unacceptable environmental impacts prior to the incompatible development taking place”. Therefore, overall the standing advice could have mixed minor positive/minor negative effects on this SA objective. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of proposals within Safeguarding Areas, which for some will not be known until the planning application stage. Furthermore, it must be emphasised, that the process of safeguarding does not mean that extraction will be automatically allowed.</p> <p>There are also policies that will mitigate the effects on the safety of aerodromes, such as the Proposed Policy for Safeguarding Aerodromes. Proposed Policies such as these will be used alongside the Standing Advice and Policy for Mineral Safeguarding Areas when determining proposals.</p> |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | ++       | The Proposed Standing Advice will ensure that the Policy for Mineral Safeguarding Areas is effectively implemented and adhered to. The Safeguarding Areas will have significant positive effects on this SA objective, as the policy ensures that mineral resources will be protected from unnecessary sterilisation by other development, whilst not creating a presumption that resources defined in MSAs will be worked, and ensures that minerals resources will be adequately and effectively considered in all land-use planning decisions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | +?       | The Proposed Standing Advice will ensure that the Policy for Mineral Safeguarding Areas is effectively implemented and adhered to. The Safeguarding Areas supported by the proposed policy may have minor positive effects on biodiversity, as the potential prevention of non-mineral development in Safeguarding Areas that would prejudice mineral workings may prevent development that could harm biodiversity. Also, areas used for mineral activity within Safeguarding Areas, in the long-term, could benefit biodiversity as a result of the restoration of mineral sites. It must be emphasised, however, that the process of safeguarding does not mean that extraction will be automatically allowed or that non mineral development cannot take place. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of proposals within Safeguarding Areas, which for some will not be                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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|                                                                                                                                                                                                                    |          | <p>known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on biodiversity, such as the Proposed Policy for Biodiversity and Geodiversity. Proposed Policies such as these will be used alongside the Standing Advice and Policy for Mineral Safeguarding Areas when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | +/-?     | <p>The Proposed Standing Advice will ensure that the Policy for Mineral Safeguarding Areas is effectively implemented and adhered to. The Safeguarding Areas supported by the proposed policy may have minor positive effects on landscape, as the potential prevention of non-mineral development in Safeguarding Areas that would prejudice mineral workings may prevent development that could negatively impact on the landscape. However, the Safeguarding Areas may lead to more mineral workings (e.g. where the mineral needs to be worked before non-mineral development can take place) or the continuation of ancillary mineral facilities that could have a detrimental impact on the landscape. It must be emphasised, however, that the process of safeguarding does not mean that extraction will be automatically allowed or that non mineral development cannot take place. Overall, a mixed effect, minor positive/minor negative is likely for this SA objective. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of proposals within Safeguarding Areas, which for some will not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on landscape, such as the Proposed Landscape Policy. Proposed Policies such as these will be used alongside the Standing Advice and Policy for Mineral Safeguarding Areas when determining proposals.</p> |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | <p>The Proposed Standing Advice will ensure that the Policy for Mineral Safeguarding Areas is effectively implemented and adhered to. The Safeguarding Areas supported by the proposed policy may potentially restrict non-mineral developments that may not be able to be restored to such a high standard, or be able to provide benefits to conservation and biodiversity enhancement as well as mineral sites. Furthermore, Safeguarding Areas may lead to more mineral extraction activities (e.g. where the mineral needs to be worked before non-mineral development can take place) or the continuation of ancillary mineral facilities that could provide benefits via site restoration. Therefore, minor positive effects are expected for this SA objective. It must be emphasised, however, that the process of safeguarding does not mean that extraction will be automatically allowed or that non mineral development cannot take place. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of</p>                                                                                                                                                                                                                                                                                                                                                                                                              |

| SA Objective and Sub Questions                                                                    | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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|                                                                                                   |          | <p>proposals within Safeguarding Areas, which for some will not be known until the planning application stage.</p> <p>There are also policies that will support the restoration of mineral sites to a high standard, such as the Proposed Restoration Policy. Proposed Policies such as these will be used alongside the Standing Advice and Policy for Mineral Safeguarding Areas when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets. | +/-?     | <p>The Proposed Standing Advice will ensure that the Policy for Mineral Safeguarding Areas is effectively implemented and adhered to. The Safeguarding Areas supported by the proposed policy may potentially restrict non-mineral developments that could otherwise have a negative effect on Gloucestershire's material, cultural and recreational assets (e.g. Public Rights of Way). However, the Safeguarding Areas may lead to more mineral extraction activities (e.g. where the mineral needs to be worked before non-mineral development can take place) or the continuation of ancillary mineral facilities that could have a detrimental impact on these assets. It must be emphasised, however, that the process of safeguarding does not mean that extraction will be automatically allowed or that non mineral development cannot take place. Overall, a mixed effect minor positive/minor negative is likely for this SA objective. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of proposals within Safeguarding Areas, which for some will not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on Gloucestershire's material, cultural and recreational assets, such as the Proposed Policy for Public Rights of Way. Proposed Policies such as these will be used alongside the Standing Advice and Policy for Mineral Safeguarding Areas when determining proposals.</p> |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                              | ++?      | <p>The Proposed Standing Advice will ensure that the Policy for Mineral Safeguarding Areas is effectively implemented and adhered to. The Safeguarding Areas supported by the proposed policy should have a significant positive effect with regard to the protection of geodiversity, as safeguarding minerals is likely to protect minerals that may be accessed for extraction, and therefore may be preserved and be accessible for study and enjoyment in the future. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of proposals within Safeguarding Areas, which will not be known until the planning application stage.</p> <p>There are also policies that will mitigate effects on geodiversity, thereby protecting and enhancing geodiversity in Gloucestershire, such as the Proposed Policy for Biodiversity</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |



| SA Objective and Sub Questions                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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|                                                                                                                                          |          | and Geodiversity. Proposed Policies such as these will be used alongside the Proposed Policy when determining proposals.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                         | +/-?     | <p>The Proposed Standing Advice will ensure that the Policy for Mineral Safeguarding Areas is effectively implemented and adhered to. The Safeguarding Areas supported by the proposed policy may potentially restrict non-mineral developments that would otherwise have a negative effect on the historic environment, heritage assets and their setting. However, the Safeguarding Areas may lead to more mineral extraction activities (e.g. where the mineral needs to be worked before non-mineral development can take place) or the continuation of ancillary mineral facilities that would have a detrimental impact on the historic environment. It must be emphasised, however, that the process of safeguarding does not mean that extraction will be automatically allowed or that non mineral development cannot take place. Overall, a mixed effect, minor positive/minor negative is likely for this SA objective. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of proposals within Safeguarding Areas, which for some will not be known until the planning application stage.</p> <p>There are policies that aim to protect and mitigate effects on the Historic Environment, such as the Proposed Policy for the Historic Environment. Proposed Policies such as these will be used alongside the Standing Advice and Policy for Mineral Safeguarding Areas when determining proposals.</p> |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                           | 0        | Flooding is unlikely to be affected by the Standing Advice for the implementation of the Proposed Policy for Mineral Safeguarding Areas, therefore no effect is expected for this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                       | 0        | Soil/land quality is unlikely to be affected by the Standing Advice for the implementation of the Proposed Policy for Mineral Safeguarding Areas, therefore no effect is expected for this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality. | 0        | Air quality is unlikely to be affected by the Standing Advice for the implementation of the Proposed Policy for Mineral Safeguarding Areas, therefore no effect is expected for this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals                                    | 0        | Water quality and quantity is unlikely to be affected by the Standing Advice for the implementation of the Proposed Policy for Mineral Safeguarding Areas, therefore no                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                                               | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| development does not compromise sustainable sources of water supply.                                                                                                                                                                                                                                                         |          | effect is expected for this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <p>17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:</p> <p>a) reducing the need to travel</p> <p>b) promoting more sustainable means of transport e.g. by rail or water</p> <p>c) sensitive lorry routing</p> <p>d) the use of sustainable alternative fuels</p> | +/-?     | <p>The Proposed Standing Advice will ensure that the Policy for Mineral Safeguarding Areas is effectively implemented and adhered to. The Safeguarding Areas supported by the proposed policy may potentially restrict non-mineral developments that could otherwise have a negative effect on the environment and communities due to the adverse impacts of lorry traffic. However, the Safeguarding Areas may lead to more mineral extraction activities (e.g. where the mineral needs to be worked before non-mineral development can take place) or the continuation of ancillary mineral facilities that could have a detrimental impact due to the adverse impacts of lorry traffic. It must be emphasised, however, that the process of safeguarding does not mean that extraction will be automatically allowed or that non mineral development cannot take place. Overall, a mixed effect, minor positive/minor negative is likely for this SA objective. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of proposals within Safeguarding Areas, which for some will not be known until the planning application stage.</p> <p>There are policies that aim to mitigate traffic impacts and support sustainable transport, such as the Proposed Policy for Sustainable Transport. Proposed Policies such as these will be used alongside the Standing Advice and Policy for Mineral Safeguarding Areas when determining proposals.</p> |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                                               | 0        | Climate change is unlikely to be affected by the Standing Advice for the implementation of the Proposed Policy for Mineral Safeguarding Areas, therefore no effect is expected for this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

### Proposed Safeguarding Policy for Minerals Infrastructure

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | +/-?     | <p>The Mineral Safeguarding Areas for Minerals Infrastructure may potentially restrict non-mineral developments that could otherwise have a negative effect on the health and wellbeing of people and/or conflict with the existing minerals operations. However, the Safeguarding Areas will ensure that existing minerals infrastructure continue to operate un-affected by incompatible developments, which may therefore prolong any existing impacts on the health and wellbeing of people. It must be emphasised, however, that the process of safeguarding does not mean that that non mineral development cannot take place. Overall, a mixed minor positive/minor negative effect is likely for this SA objective. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of minerals infrastructure within Safeguarding Areas.</p> <p>There are also policies that will mitigate the effects on communities, and on the health and wellbeing of people living and working in Gloucestershire, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the proposed policy when determining proposals.</p> |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | +/-?     | <p>The Mineral Safeguarding Areas for Minerals Infrastructure may potentially restrict non-mineral developments that could otherwise have a negative effect on the amenity of local communities and/or conflict with the existing minerals operations. However, the Safeguarding Areas will ensure that existing minerals infrastructure continue to operate un-affected by incompatible developments, which may therefore prolong any existing impacts on local amenity. It must be emphasised, however, that the process of safeguarding does not mean that that non mineral development cannot take place. Overall, a mixed minor positive/minor negative effect is likely for this SA objective. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of minerals infrastructure within Safeguarding Areas</p> <p>There are also policies that will mitigate the effects on the amenity of local communities, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Proposed Policy determining proposals.</p>                                                                                          |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                                                  | ++/-     | <p>Minerals are essential to support sustainable economic growth and our quality of life. It is therefore important that there is a sufficient supply of material to provide the infrastructure, buildings, energy and goods that the country needs, including locally for Gloucestershire. Mineral Safeguarding Areas should help safeguard minerals</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

| SA Objective and Sub Questions                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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|                                                                                                                                                                        |          | infrastructure from incompatible development and may therefore have a positive effect on economic development related to minerals. However, as non-mineral developments may potentially be restricted within Mineral Safeguarding Areas, the proposed policy could also have negative effects on economic development, as Safeguarding Areas may reduce opportunities for other types of development. It must be emphasised, however, that the process of safeguarding does not mean that extraction will be automatically allowed or that non mineral development cannot take place. Therefore, overall this policy is likely to have mixed significant positive/minor negative effects on this SA objective.                                                                                                                                                                                                                                                                                                                                                      |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +/-      | Minerals are essential to support sustainable economic growth. It is therefore important that there is a sufficient supply of material to provide the infrastructure, buildings, energy and goods that the country needs, including locally for Gloucestershire. Mineral Safeguarding Areas should help safeguard minerals infrastructure from incompatible development and may therefore have a positive effect on economic development related to minerals, which in turn will have positive effects on employment opportunities associated with economic development. However, as non-mineral developments may potentially be restricted within Mineral Safeguarding Areas, the proposed policy could also have negative effects on employment opportunities. It must be emphasised, however, that the process of safeguarding does not mean that extraction will be automatically allowed or that non mineral development cannot take place. Therefore, overall this policy is likely to have mixed minor positive/minor negative effects on this SA objective. |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | 0        | Due to the location of Minerals Infrastructure the proposed Safeguarding Policy is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | ++       | The proposed policy is likely to have significant positive effects on this SA objective, as the policy ensures that minerals infrastructure will be safeguarded from incompatible development, and ensures that minerals infrastructure will be adequately and effectively considered in all land-use planning decisions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | +?       | Mineral Safeguarding Areas for Minerals Infrastructure may have minor positive effects on biodiversity, as the potential prevention of incompatible development in Safeguarding Areas that would prejudice mineral workings may prevent development that could harm biodiversity. Also, areas used for mineral activity within Safeguarding Areas, in the long-term, could benefit biodiversity as a result of the restoration of mineral sites. It                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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|                                                                                                                                                                                                                    |          | <p>must be emphasised, however, that the process of safeguarding does not mean that extraction will be automatically allowed or that non mineral development cannot take place. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of Minerals Infrastructure within Safeguarding Areas.</p> <p>There are also policies that will mitigate the effects on biodiversity, such as the Proposed Policy for Biodiversity and Geodiversity. Proposed Policies such as these will be used alongside the Proposed Policy when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | +/-?     | <p>Mineral Safeguarding Areas for Minerals Infrastructure may have minor positive effects on landscape, as the potential prevention of incompatible development in Safeguarding Areas that would prejudice mineral workings may prevent development that could negatively impact on the landscape. However, the Safeguarding Areas will ensure that existing minerals infrastructure continue to operate un-affected by incompatible developments, which may therefore prolong existing impacts on landscape. It must be emphasised, however, that the process of safeguarding does not mean that extraction will be automatically allowed or that non mineral development cannot take place. Overall, a mixed effect, minor positive/minor negative is likely for this SA objective. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of minerals infrastructure within Safeguarding Areas.</p> <p>There are also policies that will mitigate the effects on landscape, such as the Proposed Landscape Policy. Proposed Policies such as these will be used alongside the Proposed Policy when determining proposals.</p> |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +?       | <p>Mineral Safeguarding Areas for Minerals Infrastructure may potentially restrict incompatible development that may not be able to be restored to such a high standard, or be able to provide benefits to conservation and biodiversity enhancement as well as existing minerals infrastructure. Furthermore, Safeguarding Areas may prolong mineral activities that could provide benefits via site restoration. Therefore, minor positive effects are expected for this SA objective. It must be emphasised, however, that the process of safeguarding does not mean that extraction will be automatically allowed or that non mineral development cannot take place. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of minerals infrastructure within Safeguarding Areas.</p> <p>There are also policies that will support the restoration of mineral sites to a high standard, such as the Proposed Restoration Policy. Proposed Policies such as these will</p>                                                                                                                                                    |

| SA Objective and Sub Questions                                                                    | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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|                                                                                                   |          | be used alongside the Proposed Policy when determining proposals.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets. | +/-?     | <p>Mineral Safeguarding Areas for Minerals Infrastructure may potentially restrict non-mineral developments that could otherwise have a negative effect on Gloucestershire's material, cultural and recreational assets (e.g. Public Rights of Way). However, the Safeguarding Areas will ensure that existing minerals infrastructure continue to operate un-affected by incompatible developments, which may therefore prolong existing impacts on Gloucestershire's material, cultural and recreational assets. It must be emphasised, however, that the process of safeguarding does not mean that extraction will be automatically allowed or that non mineral development cannot take place. Overall, a mixed effect, minor positive/minor negative is likely for this SA objective. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of minerals infrastructure within Safeguarding Areas.</p> <p>There are also policies that will mitigate the effects on Gloucestershire's material, cultural and recreational assets, such as the Proposed Policy for Public Rights of Way. Proposed Policies such as these will be used alongside the Proposed Policy when determining proposals.</p> |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                              | 0        | Geodiversity is unlikely to be affected by the Proposed Safeguarding Policy for Minerals Infrastructure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.  | +/-?     | <p>Mineral Safeguarding Areas for Minerals Infrastructure will potentially restrict non-mineral developments that could otherwise have a negative effect on the historic environment, heritage assets and their setting. However, the Safeguarding Areas will ensure that existing minerals infrastructure continue to operate un-affected by incompatible developments, which may therefore prolong existing impacts on the historic environment, heritage assets and their setting. It must be emphasised, however, that the process of safeguarding does not mean that extraction will be automatically allowed or that non mineral development cannot take place. Overall, a mixed effect, minor positive/minor negative is likely for this SA objective. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of minerals infrastructure within Safeguarding Areas.</p> <p>There are policies that aim to protect and mitigate effects on the Historic Environment, such as the Proposed Policy for the Historic Environment. Proposed Policies such as these will be used alongside the Proposed Policy when determining proposals.</p>                                                         |

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                        | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                                                                                                        | 0        | Flooding is unlikely to be affected by the Proposed Safeguarding Policy for Minerals Infrastructure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                                                                                                    | 0        | Soil/land quality is unlikely to be affected by the Proposed Safeguarding Policy for Minerals Infrastructure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                                                                              | 0        | Air quality is unlikely to be affected by the Proposed Safeguarding Policy for Minerals Infrastructure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                            | 0        | Water quality and quantity is unlikely to be affected by the Proposed Safeguarding Policy for Minerals Infrastructure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels | +/-?     | <p>Mineral Safeguarding Areas for Minerals Infrastructure may potentially restrict non-mineral developments that could otherwise have a negative effect on the environment and communities due to the adverse impacts of lorry traffic. However, the Safeguarding Areas will ensure that existing minerals infrastructure continue to operate un-affected by incompatible developments, which may therefore prolong existing impacts due to lorry traffic. It must be emphasised, however, that the process of safeguarding does not mean that extraction will be automatically allowed or that non mineral development cannot take place. Overall, a mixed effect, minor positive/minor negative is likely for this SA objective. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of minerals infrastructure within Safeguarding Areas.</p> <p>There are policies that aim to mitigate traffic impacts and support sustainable transport, such as the Proposed Policy for Sustainable Transport. Proposed Policies such as these will be used alongside the Proposed Policy when determining proposals.</p> |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                        | 0        | Climate change is unlikely to be affected by the Proposed Safeguarding Policy for Minerals Infrastructure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

### Strategic Policy Aim for Primary Aggregate Minerals-Meeting the Need

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | -?       | <p>The proposed strategic policy aim on meeting the need for primary aggregate minerals may have a minor negative impact on communities and the health and wellbeing of people living and working in Gloucestershire. The policy aim supports aggregate operations to ensure an adequate and steady supply of aggregates can meet predicted needs. Therefore, this may continue to subject communities and people's health and wellbeing to impacts such as dust from blasting/ drilling and other sources (e.g. haul roads, machinery and stockpiles). However, the policy aim aims to control this subject to social considerations, and the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until the planning application stage. Furthermore, research undertaken for the government in 1995<sup>33</sup> excluded any health effects of dust generated by surface mineral operations, and research for the former Department for the Environment, Transport and the Regions (DETR) found that practice on the assessment and control of noise at surface mineral workings had improved; thereby emphasising that effects are unlikely to be greater than minor. Therefore, the policy aim could have minor negative, uncertain effects on this SA objective.</p> <p>There are also policies that will mitigate the effects on communities, and on the health and wellbeing of people living and working in Gloucestershire, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Strategic Policy Aim for Primary Aggregate Minerals-Meeting the Need when determining proposals.</p> |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -?       | <p>The proposed strategic policy aim on meeting the need for primary aggregate minerals may have a minor negative impact on the local amenity of communities, as the policy aim commits supports aggregate operations to ensure an adequate and steady supply of aggregates can meet predicted needs. Therefore, this may continue to subject local communities to impacts such as dust from blasting/ drilling and other sources (e.g. haul roads, machinery and stockpiles), vibration, noise and traffic congestion. However, the policy aim aims to control this subject to social considerations, and the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until the planning application stage. Furthermore, research undertaken for the government in 1995<sup>34</sup> excluded any health effects of dust generated by surface mineral operations, and research for the former Department for</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

<sup>33</sup> Office of the Deputy Prime Minister (by Arup Environmental/Ove Arup and Partners). The Environmental Effects of Dust from Surface Minerals Workings, 1995.

<sup>34</sup> Office of the Deputy Prime Minister (by Arup Environmental/Ove Arup and Partners). The Environmental Effects of Dust from Surface Minerals Workings, 1995.



| SA Objective and Sub Questions                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                                                                                                                                          |          | <p>the Environment, Transport and the Regions (DETR) found that practice on the assessment and control of noise at surface mineral workings had improved; thereby emphasising that effects are unlikely to be greater than minor. Therefore, the policy aim could have minor negative, uncertain effects on this SA objective.</p> <p>There are also policies that will mitigate the effects on the amenity of local communities, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Strategic Policy Aim for Primary Aggregate Minerals-Meeting the Need when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                                     |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds. | +        | <p>Aggregates are important local and national resources and are essential to support sustainable economic growth. They support a wide range of end uses and industries and it is therefore important that there is a sufficient supply of material to supply construction and to provide the infrastructure, buildings, energy and goods that Gloucestershire and the country need. The policy aim is likely to have a minor positive effect on this SA objective, as it supports aggregate operations to ensure an adequate and steady supply of aggregates can meet predicted needs, which will therefore support economic prosperity and make a positive contribution to the local and national economy.</p>                                                                                                                                                                                                                                                                                                                           |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.            | +        | <p>Aggregates are important local and national resources and support a wide range of end uses and industries. The policy aim supports the supply of aggregates, which will have a minor positive effect on increasing employment levels.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                       | -?       | <p>The policy aim supports aggregate operations to ensure an adequate and steady supply of aggregates can meet predicted needs. This includes sand and gravel extracted in the Cotswolds Water Park which is located within and in close proximity to the safeguarding zones for RAF Fairford and RAF Brize Norton. Therefore, the policy aim could have minor negative effects on the safety of commercial or military aerodromes due to the potential for birds to provide a hazard to aircraft, especially as proposals to meet Gloucestershire's needs may be restored to a form of open water use as they may be located close to the Cotswold Water Park. However, the policy aim aims to control this subject to economic, environmental and social considerations, and the effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.</p> |

| SA Objective and Sub Questions                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | This policy aim is unlikely to affect this SA Objective, as aggregate sites permitted under this policy will not be classed as inappropriate development, as they are contributing to the extraction of mineral resources, not limiting the ability to extract resources.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | +/-?     | <p>The policy aim could potentially lead to negative effects for biodiversity, as proposals for primary aggregate minerals could have potential impacts on designated sites, protected species or habitats. However, the policy aim will maintain the stated landbanks subject to environmental considerations and many sites may have the potential to achieve net gains for biodiversity during working or restoration via biodiversity enhancement opportunities that may exist. Therefore, this policy aim is likely to have mixed, minor positive and minor negative effects on this SA objective. Although, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on biodiversity, such as the Proposed Policy for Biodiversity and Geodiversity. Proposed Policies such as these will be used alongside the Strategic Policy Aim for Primary Aggregate Minerals-Meeting the Need when determining proposals.</p>                                                                                                   |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                  | +/-?     | <p>The policy aim could potentially lead to negative effects for landscape and landscape character, especially as some sites (e.g. crushed rock) could be located within the Cotswolds AONB. Although, it may be appropriate and sustainable to make provision in the Cotswold resource area to meet local provision<sup>35</sup>. However, the policy aim could also lead to positive effects, as it may lead to the sympathetic restoration of sites which could have positive effects on landscape character. Also, the policy aim aims to maintain the stated landbanks subject to environmental considerations. Therefore, this policy aim is likely to have mixed, minor positive and minor negative effects on this SA objective. Although, the effects would be uncertain as the potential for effects will depend on the exact nature and design of sites, which would not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on landscape, such as the Proposed Landscape Policy. Proposed Policies such as these will be used alongside the Strategic Policy Aim for Primary Aggregate Minerals-Meeting the Need when determining proposals.</p> |

<sup>35</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
Gloucestershire Minerals Local Plan SA

| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | <p>In most cases proposals for the extraction of minerals, including aggregates, will have the potential to be restored to a high standard, achieving maximum after use benefits and enhancing the landscape. Therefore, the policy aim is likely to have minor positive effects on this SA objective, especially as the policy aim aims to maintain the stated landbanks subject to economic, environmental and social considerations. Although, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until the planning application stage.</p> <p>There are also policies that will support the restoration of mineral sites to a high standard, such as the Proposed Restoration Policy. Proposed Policies such as these will be used alongside the Strategic Policy Aim for Primary Aggregate Minerals-Meeting the Need when determining proposals.</p>                                                                                                                                                                                                                                                  |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | 0?       | <p>This policy aim is unlikely to affect this SA Objective, as primary aggregate proposals to meet Gloucestershire's aggregate needs are unlikely to meaningfully protect, conserve or enhance Gloucestershire's material, cultural or recreation assets. However, the policy aim could support sites which could have potential effects on the access to and the enjoyment of recreational facilities (e.g. Public Rights of Way), however these would be uncertain as they would not be known until the planning application stage, and where there is the potential for effects upon recreation they will be temporary. Also, the policy aim aims to maintain the stated landbanks subject to economic, environmental and social considerations. Therefore, this policy is likely to have negligible, uncertain effects on this SA objective.</p> <p>There are also policies that will mitigate the effects on Gloucestershire's material, cultural and recreational assets, such as the Proposed Policy for Public Rights of Way. Proposed Policies such as these will be used alongside the Strategic Policy Aim for Primary Aggregate Minerals-Meeting the Need when determining proposals.</p> |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | +/-?     | <p>The policy aim may lead to minor negative effects as the continued extraction of primary aggregate may uncover and harm geological interests. However, these sites can also potentially contribute to geodiversity by preserving and conserving geological features or making them visible and available for learning opportunities. Also, the policy aim aims to maintain the stated landbanks subject to economic, environmental and social considerations. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design, and location of sites, which would not be known until the planning application stage. Therefore, the proposed policy is likely to have uncertain, mixed minor positive and minor negative effects on this SA objective.</p>                                                                                                                                                                                                                                                                                                                                                                                         |

| SA Objective and Sub Questions                                                                          | SA Score    | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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|                                                                                                         |             | <p>There are also policies that will mitigate effects on geodiversity, thereby protecting and enhancing geodiversity in Gloucestershire, such as the Proposed Policy for Biodiversity and Geodiversity. Proposed Policies such as these will be used alongside the Strategic Policy Aim for Primary Aggregate Minerals-Meeting the Need when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <p>12. To protect conserve and enhance the historic environment, heritage assets and their setting.</p> | <p>+/-?</p> | <p>The policy aim is likely to have minor negative effects on this SA objective, as some aggregate sites (particularly crushed rock) are intensive and could therefore negatively affect the historic environment (e.g. archaeology), heritage assets and their setting as a result of blasting. However, some sites may not be as intensive and be able to preserve findings and therefore benefit our understanding of the local archaeology or contribute towards the local vernacular. The policy aim also aims to maintain the stated landbanks subject to economic, environmental and social considerations. Also, the effects would be uncertain as the potential for effects will depend on the exact nature and design, and location of sites, which would not be known until the planning application stage. Therefore, the policy aim is likely to have uncertain, mixed minor positive/minor negative effects on this SA objective.</p> <p>There are policies that aim to protect and mitigate effects on the Historic Environment, such as the Proposed Policy for the Historic Environment. Proposed Policies such as these will be used alongside the Strategic Policy Aim for Primary Aggregate Minerals-Meeting the Need when determining proposals.</p> |
| <p>13. To prevent flooding, in particular preventing inappropriate development in the floodplain.</p>   | <p>0/+?</p> | <p>The policy aim is expected to have an uncertain, mixed no effect/minor positive effect on flood risk areas, as crushed rock working and processing is classed as less vulnerable, which means they are potentially compatible with all flood zones except for Flood Zone 3b, which they are unlikely to be located within, and are therefore not expected to affect this SA objective. Whereas, sand and gravel extraction sites are classed as water-compatible development and are potentially suitable for all flood zones including 3b, the functional floodplain, and therefore have the potential to increase flood capacity and have minor positive effects on this SA objective. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design, and location of the sites, which would not be known until the planning application stage.</p> <p>There are policies that will mitigate any effects regarding flooding, such as the Proposed Policy for Flood Risk. Proposed Policies such as these will be used alongside the Strategic Policy Aim for Primary Aggregate Minerals-Meeting the Need when determining proposals.</p>                                                                           |

| SA Objective and Sub Questions                                                                                                                                             | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                         | -?       | <p>Sites which come forward and are supported by this policy aim are likely to range from small to medium scale (i.e. less than 20ha) to large (i.e. over 20ha). However, the exact land take and location according to agricultural land quality (i.e. Grades 1 – 5), and whether improvements to soil quality through site restoration are possible; will not be known until the planning application stage, therefore effects on this SA Objective are likely to be minor negative uncertain.</p> <p>There are policies that aim to protect and enhance soil quality, such as the Proposed Policy for Soils. Proposed Policies such as these will be used alongside the Strategic Policy Aim for Primary Aggregate Minerals-Meeting the Need when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                   | -?       | <p>The policy aim on meeting the need for primary aggregate minerals may have a minor negative impact on this SA objective, as the aim supports aggregate operations to ensure an adequate and steady supply of aggregates can meet predicted needs. Therefore, primary aggregate proposals will involve activities (e.g. lorry traffic) that may negatively affect air quality, for example, due to the proximity of sensitive receptors and the distance mineral related traffic has to travel before reaching the strategic highway network. However, the policy aim aims to maintain the stated landbanks subject to economic, environmental and social considerations. Also, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until the planning application stage. Therefore, the policy aim could have minor negative, uncertain effects on this SA objective.</p> <p>There are policies that aim to mitigate air quality impacts, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Strategic Policy Aim for Primary Aggregate Minerals-Meeting the Need when determining proposals.</p> |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply. | ?        | <p>While this policy aim may affect the water quality and quantity in Gloucestershire, at this stage in the planning process it is not possible to determine the impacts of policies such as this on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the brick clay proposal (location, design, method of working etc.), which would be assessed at the planning application stage.</p> <p>There are, however, policies that aim to mitigate impacts on water quality, such as the Proposed Policy for Water Quality. Proposed Policies such as these will be used alongside the Strategic Policy Aim for Primary Aggregate Minerals-Meeting the Need when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                                                                                                | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| <p>17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:</p> <ul style="list-style-type: none"> <li>a) reducing the need to travel</li> <li>b) promoting more sustainable means of transport e.g. by rail or water</li> <li>c) sensitive lorry routing</li> <li>d) the use of sustainable alternative fuels</li> </ul> | -?       | <p>This policy aim is likely to have minor negative effects on this SA objective, as the policy aim supports aggregate operations to ensure an adequate and steady supply of aggregates can meet predicted needs. Therefore, primary aggregate proposals will involve lorry traffic movements, which as some sites may comprise multiple movements per day. However, the policy aim aims to maintain the stated landbanks subject to economic, environmental and social considerations. Also, the exact location of proposals, traffic levels, lorry routing and access arrangements will not be known until the planning application stage, therefore these effects are uncertain.</p> <p>There are policies that aim to mitigate traffic impacts and support sustainable transport, such as the Proposed Policy for Sustainable Transport. Proposed Policies such as these will be used alongside the Strategic Policy Aim for Primary Aggregate Minerals-Meeting the Need when determining proposals.</p>                                                                                                                                                                                                               |
| <p>18. To reduce contributions to and to adapt to Climate Change.</p>                                                                                                                                                                                                                                                                                                         | +        | <p>The policy aim may have minor positive effects on climate change as it will only permit primary aggregate mineral sites to contribute to the provision for an adequate and steady supply of aggregates subject to economic, environmental and social considerations. However, at this stage in the planning process it is not possible to determine the impacts of minerals policies on their ability to help reduce contributions to and to adapt to climate change as it will depend on the proposals they are used to determine and how successfully they are implemented, which would not be known until the planning application stage.</p> <p>When determining proposals, the Vision and Strategic Priorities will also be used to help determine proposals, which support reducing climate change impacts via mineral workings and their associated activities. Furthermore, policies such as the Proposed Policy for Sustainable Transport, the Proposed Policy for Biodiversity and Geodiversity, and the Proposed Policy for Mitigation of Environmental Effects all support the Vision and Strategic Priorities in reducing climate change impacts, which will be considered when determining proposals.</p> |

### Strategic Policy Aim for Primary Aggregate Minerals-Identifying Future Supply Areas

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | -?       | <p>The proposed strategic policy aim for identifying future supply areas for primary aggregate minerals may have minor negative effects on communities and the health and wellbeing of people living and working in Gloucestershire. The policy aim supports aggregate operations in the Forest of Dean, and the Upper Thames Valley to ensure an adequate and steady supply of aggregates can meet predicted needs. Therefore, this may continue to subject communities and people's health and wellbeing to impacts such as dust from blasting/ drilling and other sources (e.g. haul roads, machinery and stockpiles). However, there are also policies that will mitigate the effects on communities, and on the health and wellbeing of people living and working in Gloucestershire, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside this Strategic Policy Aim when determining proposals.</p> <p>Any effects would also be uncertain as the potential for effects will depend on the exact nature and design of the sites within the identified appropriate areas. While sites within these appropriate areas have been assessed as part of this Sustainability Appraisal, it is still not known what sites may come forward and what the exact proposals will include, this will not be known until the planning application stage. Furthermore, research undertaken for the government in 1995<sup>36</sup> excluded any health effects of dust generated by surface mineral operations, and research for the former Department for the Environment, Transport and the Regions (DETR) found that practice on the assessment and control of noise at surface mineral workings had improved; thereby emphasising that effects are unlikely to be greater than minor. Therefore, the policy aim could have minor negative, uncertain effects on this SA objective.</p> |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -?       | <p>The proposed strategic policy aim for identifying future supply areas for primary aggregate minerals may have minor negative effects on the amenity of local communities in Gloucestershire. The policy aim supports aggregate operations in the Forest of Dean, and the Upper Thames Valley to ensure an adequate and steady supply of aggregates can meet predicted needs. Therefore, this may continue to subject local communities to impacts such as dust from blasting/ drilling and other sources (e.g. haul roads, machinery and stockpiles), vibration, noise and traffic congestion. However, there are also policies that will mitigate the effects on the amenity of local communities, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside this Strategic Policy Aim when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

<sup>36</sup> Office of the Deputy Prime Minister (by Arup Environmental/Ove Arup and Partners). The Environmental Effects of Dust from Surface Minerals Workings, 1995.

| SA Objective and Sub Questions                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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|                                                                                                                                          |          | Any effects would also be uncertain as the potential for effects will depend on the exact nature and design of the sites within the identified appropriate areas. While sites within these appropriate areas have been assessed as part of this Sustainability Appraisal, it is still not known what sites may come forward and what the exact proposals will include, this will not be known until the planning application stage. Furthermore, research undertaken for the government in 1995 <sup>37</sup> excluded any health effects of dust generated by surface mineral operations, and research for the former Department for the Environment, Transport and the Regions (DETR) found that practice on the assessment and control of noise at surface mineral workings had improved; thereby emphasising that effects are unlikely to be greater than minor. Therefore, the policy aim could have minor negative, uncertain effects on this SA objective. |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds. | +        | Aggregates are important local and national resources and are essential to support sustainable economic growth. They support a wide range of end uses and industries and it is therefore important that there is a sufficient supply of material to supply construction and to provide the infrastructure, buildings, energy and goods that Gloucestershire and the country need. The policy aim is likely to have a minor positive effect on this SA objective, as it supports aggregate operations in the Forest of Dean, and the Upper Thames Valley to ensure an adequate and steady supply of aggregates can meet predicted needs, which will therefore support economic prosperity and make a positive contribution to the local and national economy.                                                                                                                                                                                                      |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.            | +        | Aggregates are important local and national resources and support a wide range of end uses and industries. The policy aim supports the supply of aggregates within appropriate areas, which will have a minor positive effect on increasing employment levels in areas throughout the County.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                       | -?       | The policy aim supports aggregate operations in appropriate areas in accordance with the LAA requirements. For sand and gravel the main focus of the provision will be the Upper Thames Valley, which includes the Cotswolds Water Park which is located within and in close proximity to the safeguarding zones for RAF Fairford and RAF Brize Norton. Therefore, the policy aim could have minor negative effects on the safety of commercial or military aerodromes due to the potential for birds to provide a hazard to aircraft, especially as proposals in appropriate may be restored to a form of open water use as                                                                                                                                                                                                                                                                                                                                      |

<sup>37</sup> Office of the Deputy Prime Minister (by Arup Environmental/Ove Arup and Partners). The Environmental Effects of Dust from Surface Minerals Workings, 1995.



| SA Objective and Sub Questions                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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|                                                                                                                                                                        |          | <p>they may be located close to the Cotswold Water Park. However, there are also policies that will mitigate the effects on the safety of commercial or military aerodromes, such as the Proposed Policy for Safeguarding Aerodromes. Proposed Policies such as these will be used alongside this Strategic Policy Aim when determining proposals.</p> <p>Any effects would also be uncertain as the potential for effects will depend on the exact nature and design of the sites within the identified appropriate areas. While sites within these appropriate areas have been assessed as part of this Sustainability Appraisal, it is still not known what sites may come forward and what the exact proposals will include, this will not be known until the planning application stage. Therefore, the policy aim could have minor negative, uncertain effects on this SA objective.</p>                                                                                                                                                                                                                                                                                                                                                                                    |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | This policy aim is unlikely to affect this SA Objective, as aggregate sites located within the appropriate areas permitted under this policy will not be classed as inappropriate development, as they are contributing to the extraction of mineral resources, not limiting the ability to extract resources.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | +/-?     | <p>The policy aim could potentially lead to negative effects for biodiversity, as proposals for primary aggregate minerals within the appropriate areas could have potential impacts on designated sites, protected species or habitats. However, there are policies that will mitigate the effects on biodiversity, such as the Proposed Policy for Biodiversity and Geodiversity. Proposed Policies such as these will be used alongside this Strategic Policy Aim when determining proposals. Also, many sites within the appropriate areas may have the potential to achieve net gains for biodiversity during working or restoration via biodiversity enhancement opportunities that may exist. Therefore, this policy aim is likely to have mixed, minor positive and minor negative effects on this SA objective.</p> <p>Although, any effects would also be uncertain as the potential for effects will depend on the exact nature and design of the sites within the identified appropriate areas. While sites within these appropriate areas have been assessed as part of this Sustainability Appraisal, it is still not known what sites may come forward and what the exact proposals will include, this will not be known until the planning application stage.</p> |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                  | +/-?     | The policy aim could potentially lead to negative effects for landscape and landscape character, especially as some sites within the appropriate areas (e.g. crushed rock) could be located within the Cotswolds AONB. Although, it may be appropriate and sustainable to make provision in the Cotswold resource area to meet local provision <sup>38</sup> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

<sup>38</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
Gloucestershire Minerals Local Plan SA

| SA Objective and Sub Questions                                                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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|                                                                                                                                                                                                                           |          | <p>However, the policy aim could also lead to positive effects, as it may lead to the sympathetic restoration of sites which could have positive effects on landscape character. Also, there are policies that will mitigate the effects on landscape, such as the Proposed Landscape Policy. Proposed Policies such as these will be used alongside this Strategic Policy Aim when determining proposals. Therefore, this policy aim is likely to have mixed, minor positive and minor negative effects on this SA objective.</p> <p>Although, any effects would also be uncertain as the potential for effects will depend on the exact nature and design of the sites within the identified appropriate areas. While sites within these appropriate areas have been assessed as part of this Sustainability Appraisal, it is still not known what sites may come forward and what the exact proposals will include, this will not be known until the planning application stage.</p>                                                                                                                                                                                                                                                                                                                                                                                 |
| <p>9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible.</p> | <p>+</p> | <p>In most cases proposals for the extraction of minerals, including aggregates in the appropriate areas, will have the potential to be restored to a high standard, achieving maximum after use benefits and enhancing the landscape. Therefore, the policy aim is likely to have minor positive effects on this SA objective. There are also policies that will support the restoration of sites to a high standard, such as the Proposed Restoration Policy and the Proposed Strategic Aim for the Cotswold Water Park. Proposed Policies such as these will be used alongside this Strategic Policy Aim when determining proposals. Although, any effects would also be uncertain as the potential for effects will depend on the exact nature and design of the sites within the identified appropriate areas. While sites within these appropriate areas have been assessed as part of this Sustainability Appraisal, it is still not known what sites may come forward and what the exact proposals will include, this will not be known until the planning application stage.</p>                                                                                                                                                                                                                                                                               |
| <p>10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.</p>                                                                                                                  | <p>0</p> | <p>This policy aim is unlikely to affect this SA Objective, as proposals within the appropriate areas to help meet the LAA requirements are unlikely to meaningfully protect, conserve or enhance Gloucestershire's material, cultural or recreational assets. However, the policy aim could support sites within the appropriate areas which could have potential effects on the access to and the enjoyment of recreational facilities (e.g. Public Rights of Way), however these would be uncertain as they would not be known until the planning application stage, and where there is the potential for effects upon recreation they will be temporary. However, there are policies that will mitigate the effects on Gloucestershire's material, cultural and recreational assets, such as the Proposed Policy for Public Rights of Way. Proposed Policies such as these will be used alongside this Strategic Policy Aim when determining proposals. Although, any effects would also be uncertain as the potential for effects will depend on the exact nature and design of the sites within the identified appropriate areas. While sites within these appropriate areas have been assessed as part of this Sustainability Appraisal, it is still not known what sites may come forward and what the exact proposals will include, this will not be known</p> |

| SA Objective and Sub Questions                                                                   | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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|                                                                                                  |          | until the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                             | +/-?     | The policy aim may lead to minor negative effects as the continued extraction of primary aggregate within these appropriate areas may uncover and harm geological interests. However, these future supply areas and any proposals within then can also potentially contribute to geodiversity by preserving and conserving geological features or making them visible and available for learning opportunities. Also, there are policies that will mitigate effects on geodiversity, thereby protecting and enhancing geodiversity in Gloucestershire, such as the Proposed Policy for Biodiversity and Geodiversity. Proposed Policies such as these will be used alongside this Strategic Policy Aim when determining proposals. Although, any effects would also be uncertain as the potential for effects will depend on the exact nature and design of the sites within the identified appropriate areas. While sites within these appropriate areas have been assessed as part of this Sustainability Appraisal, it is still not known what sites may come forward and what the exact proposals will include, this will not be known until the planning application stage. Therefore, the policy aim is likely to have uncertain, mixed minor positive and minor negative effects on this SA objective.                                                  |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting. | +/-?     | The policy aim is likely to have minor negative effects on this SA objective, as some aggregate sites (particularly crushed rock) within the appropriate areas will be intensive and could therefore negatively affect the historic environment (e.g. archaeology), heritage assets and their setting as a result of blasting. However, some sites may not be as an intensive and be able to preserve findings and therefore benefit our understanding of the local archaeology or contribute towards the local vernacular. There are also policies that aim to protect and mitigate effects on the Historic Environment, such as the Proposed Policy for the Historic Environment. Proposed Policies such as these will be used alongside this Strategic Policy Aim when determining proposals. Also, any effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites within the identified appropriate areas. While sites within these appropriate areas have been assessed as part of this Sustainability Appraisal, it is still not known what sites may come forward and what the exact proposals will include, this will not be known until the planning application stage. Therefore, the policy aim is likely to have uncertain, mixed minor positive/minor negative effects on this SA objective. |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.   | 0/+?     | The policy aim is expected to have an uncertain, mixed no effect/minor positive effect on flood risk areas, as crushed rock working and processing in the Forest of Dean and in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

| SA Objective and Sub Questions                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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|                                                                                                                                          |          | <p>the Cotswolds areas is classed as less vulnerable, which means they are potentially compatible with all flood zones except for Flood Zone 3b, which they are unlikely to be located within, and are therefore not expected to affect this SA objective. Whereas, sand and gravel extraction sites in the Upper Thames Valley area are classed as water-compatible development and are potentially suitable for all flood zones including 3b, the functional floodplain, and therefore have the potential to increase flood capacity and have minor positive effects on this SA objective. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites within the identified appropriate areas. While sites within these appropriate areas have been assessed as part of this Sustainability Appraisal, it is still not known what sites may come forward and what the exact proposals will include, this will not be known until the planning application stage.</p> <p>There are policies that will mitigate any effects regarding flooding, such as the Proposed Policy for Flood Risk. Proposed Policies such as these will be used alongside this Strategic Policy Aim when determining proposals.</p> |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                       | -?       | <p>Sites which come forward in the appropriate areas and are supported by this policy aim are likely to range from small to medium scale (i.e. less than 20ha) to large (i.e. over 20ha). However, the exact land take and location according to agricultural land quality (i.e. Grades 1 – 5), and whether improvements to soil quality through site restoration are possible; will not be known until the planning application stage, therefore effects on this SA Objective are likely to be minor negative uncertain.</p> <p>There are policies that aim to protect and enhance soil quality, such as the Proposed Policy for Soils. Proposed Policies such as these will be used alongside this Strategic Policy Aim when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality. | -?       | <p>The policy aim on future supply areas to meet the requirements of the LAA may have a minor negative impact on this SA objective, as the aim supports aggregate operations. Therefore, primary aggregate proposals within these appropriate areas will involve activities (e.g. lorry traffic) that may negatively affect air quality, for example, due to the proximity of sensitive receptors and the distance mineral related traffic has to travel before reaching the strategic highway network. However, there are policies that aim to mitigate air quality impacts, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside this Strategic Policy Aim when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                        | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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|                                                                                                                                                                                                                                                                                                       |          | Although, any effects would also be uncertain as the potential for effects will depend on the exact nature and design of the sites within the identified appropriate areas. While sites within these appropriate areas have been assessed as part of this Sustainability Appraisal, it is still not known what sites may come forward and what the exact proposals will include, this will not be known until the planning application stage. Therefore, the policy aim could have minor negative, uncertain effects on this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                            | ?        | <p>While this policy aim may affect the water quality and quantity in Gloucestershire, at this stage in the planning process it is not possible to determine the impacts of policies such as this on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the brick clay proposal (location, design, method of working etc.), which would be assessed at the planning application stage.</p> <p>There are, however, policies that aim to mitigate impacts on water quality, such as the Proposed Policy for Water Quality. Proposed Policies such as these will be used alongside this Strategic Policy Aim when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels | -?       | <p>This policy aim is likely to have minor negative effects on this SA objective, as the policy aim supports aggregate operations in appropriate areas to meet the requirements of the LAA. Therefore, primary aggregate proposals within the areas will involve lorry traffic movements, which as some sites may comprise multiple movements per day. However, there are policies that aim to mitigate traffic impacts and support sustainable transport, such as the Proposed Policy for Sustainable Transport. Proposed Policies such as these will be used alongside this Strategic Policy Aim when determining proposals. Also, the exact location of proposals, traffic levels, lorry routing and access arrangements will not be known until the planning application stage, therefore any effects would also be uncertain as the potential for effects will depend on the exact nature and design of the sites within the identified appropriate areas. While sites within these appropriate areas have been assessed as part of this Sustainability Appraisal, it is still not known what sites may come forward and what the exact proposals will include, this will not be known until the planning application stage.</p> |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                        | +?       | <p>The policy aim may have minor positive effects on climate change as sites will only be permitted in these future supply areas subject to accordance with other policies in the MLP, which seek to reduce environmental effects. However, at this stage in the planning process it is not possible to determine the impacts of minerals policies on their ability to help reduce contributions to and to adapt to climate change as it will depend on the proposals they are used to determine and how successfully they are implemented, which would not be known until the planning application stage.</p> <p>When determining proposals, the Vision and Strategic Priorities will also be used to help</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

| SA Objective and Sub Questions | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                |          | <p>determine proposals, which support reducing climate change impacts via mineral workings and their associated activities. Furthermore, policies such as the Proposed Policy for Sustainable Transport, the Proposed Policy for Biodiversity and Geodiversity, and the Proposed Policy for Mitigation of Environmental Effects all support the Vision and Strategic Priorities in reducing climate change impacts, which will be considered when determining proposals.</p> |

### Proposed Policy for Preferred Areas for Aggregates

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | -?       | <p>The proposed policy may have a minor negative impact on communities and the health and wellbeing of people living and working in Gloucestershire. The policy supports aggregate operations within Preferred Areas. Therefore, this may continue to subject communities and people's health and wellbeing to impacts such as dust from blasting/ drilling and other sources (e.g. haul roads, machinery and stockpiles). However, the policy will only permit operations where need to maintain the landbank is demonstrated and where the key development criteria of the plan are satisfied. Also, any effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites within Preferred Areas. While sites within these areas have been assessed as part of this Sustainability Appraisal, it is still not known what sites may come forward and what the exact proposals will include, this will not be known until the planning application stage. Furthermore, research undertaken for the government in 1995<sup>39</sup> excluded any health effects of dust generated by surface mineral operations, and research for the former Department for the Environment, Transport and the Regions (DETR) found that practice on the assessment and control of noise at surface mineral workings had improved; thereby emphasising that effects are unlikely to be greater than minor. Therefore, the proposed policy could have minor negative, uncertain effects on this SA objective.</p> <p>There are also policies that will mitigate the effects on communities, and on the health and wellbeing of people living and working in Gloucestershire, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Proposed Policy for Preferred Areas for Aggregates when determining proposals.</p> |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -?       | <p>The proposed policy may have a minor negative impact on the local amenity of communities, as the policy supports aggregate operations within Preferred Areas. Therefore, this may continue to subject local communities to impacts such as dust from blasting/ drilling and other sources (e.g. haul roads, machinery and stockpiles), vibration, noise and traffic congestion. However, the policy will only permit operations where need to maintain the landbank is demonstrated and where the key development criteria of the plan are satisfied. Also, any effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites within Preferred Areas. While sites within these areas have been assessed as part of this Sustainability Appraisal, it is still not known what sites may come forward and what the exact</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

<sup>39</sup> Office of the Deputy Prime Minister (by Arup Environmental/Ove Arup and Partners). The Environmental Effects of Dust from Surface Minerals Workings, 1995.

| SA Objective and Sub Questions                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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|                                                                                                                                          |          | <p>proposals will include, this will not be known until the planning application stage. Furthermore, research undertaken for the government in 1995<sup>40</sup> excluded any health effects of dust generated by surface mineral operations, and research for the former Department for the Environment, Transport and the Regions (DETR) found that practice on the assessment and control of noise at surface mineral workings had improved; thereby emphasising that effects are unlikely to be greater than minor. Therefore, the proposed policy could have minor negative, uncertain effects on this SA objective.</p> <p>There are also policies that will mitigate the effects on the amenity of local communities, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Proposed Policy for Preferred Areas of Aggregates when determining proposals.</p> |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds. | +        | Aggregates are important local and national resources and are essential to support sustainable economic growth. They support a wide range of end uses and industries and it is therefore important that there is a sufficient supply of material to supply construction and to provide the infrastructure, buildings, energy and goods that Gloucestershire and the country need. The proposed policy is likely to have a minor positive effect on this SA objective, as it supports aggregate operations within Preferred Areas, which will therefore support economic prosperity and make a positive contribution to the local and national economy.                                                                                                                                                                                                                                                                                         |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.            | +        | Aggregates are important local and national resources and support a wide range of end uses and industries. The proposed policy supports the supply of aggregates, which will have a minor positive effect on increasing employment levels.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                       | -?       | The proposed policy supports aggregate operations within Preferred Areas. This includes preferred areas for sand and gravel extracted in the Cotswolds Water Park which is located within and in close proximity to the safeguarding zones for RAF Fairford and RAF Brize Norton. Therefore, the proposed policy could have minor negative effects on the safety of commercial or military aerodromes due to the potential for birds to provide a hazard to aircraft, especially as proposals to meet Gloucestershire's needs may be restored to a form of open water use as they may be located close to the Cotswold Water Park. However, the proposed policy will only permit proposals where it is                                                                                                                                                                                                                                         |

<sup>40</sup> Office of the Deputy Prime Minister (by Arup Environmental/Ove Arup and Partners). The Environmental Effects of Dust from Surface Minerals Workings, 1995.



| SA Objective and Sub Questions                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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|                                                                                                                                                                        |          | <p>demonstrated that the proposals are required to maintain the landbank requirements, and where all key development criteria of the plan are satisfied. The effects would also be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site within the Preferred Areas. While sites within these areas have been assessed as part of this Sustainability Appraisal, it is still not known what sites may come forward and what the exact proposals will include, this will not be known until the planning application stage. Therefore, the proposed policy could have minor negative, uncertain effects on this SA objective.</p> <p>There are also policies that will mitigate the effects on the safety of aerodromes, such as the Proposed Policy for Safeguarding Aerodromes. Proposed Policies such as these will be used alongside the Proposed Policy for Preferred Areas of Aggregates when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                            |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | This policy is unlikely to affect this SA Objective, as aggregate sites permitted under this policy will not be classed as inappropriate development, as they are contributing to the extraction of mineral resources, not limiting the ability to extract resources.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | +/-?     | <p>The proposed policy could potentially lead to negative effects for biodiversity, as proposals within the preferred areas could have potential impacts on designated sites, protected species or habitats. However, the proposed policy will only permit proposals where all key development criteria of the plan are satisfied and many sites may have the potential to achieve net gains for biodiversity during working or restoration via biodiversity enhancement opportunities that may exist. Therefore, this proposed policy is likely to have mixed, minor positive and minor negative effects on this SA objective. Although, any effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites within Preferred Areas. While sites within these areas have been assessed as part of this Sustainability Appraisal, it is still not known what sites may come forward and what the exact proposals will include, this will not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on biodiversity, such as the Proposed Policy for Biodiversity and Geodiversity. Proposed Policies such as these will be used alongside the Proposed Policy for Preferred Areas of Aggregates when determining proposals.</p> |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                  | +/-?     | The proposed policy could potentially lead to negative effects for landscape and landscape character, especially as some sites (e.g. crushed rock) could be located within                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

| SA Objective and Sub Questions                                                                                                                                                                                            | SA Score  | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                           |           | <p>the Cotswolds AONB. Although, it may be appropriate and sustainable to make provision in the Cotswold resource area to meet local provision<sup>41</sup>. However, the proposed policy could also lead to positive effects, as it may lead to the sympathetic restoration of sites which could have positive effects on landscape character. Also, the proposed policy will only permit proposals where all key development criteria of the plan are satisfied. Therefore, this proposed policy is likely to have mixed, minor positive and minor negative effects on this SA objective. Although, any effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites within Preferred Areas. While sites within these areas have been assessed as part of this Sustainability Appraisal, it is still not known what sites may come forward and what the exact proposals will include, this will not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on landscape, such as the Proposed Landscape Policy. Proposed Policies such as these will be used alongside the Proposed Policy for Preferred Areas of Aggregates when determining proposals.</p> |
| <p>9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible.</p> | <p>+?</p> | <p>In most cases proposals for the extraction of minerals within Preferred Areas, including aggregates, will have the potential to be restored to a high standard, achieving maximum after use benefits and enhancing the landscape. Therefore, the proposed policy is likely to have minor positive effects on this SA objective, especially as the proposed policy will only permit proposals where all key development criteria of the plan are satisfied. Although, any effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites within Preferred Areas. While sites within these areas have been assessed as part of this Sustainability Appraisal, it is still not known what sites may come forward and what the exact proposals will include, this will not be known until the planning application stage.</p> <p>There are also policies that will support the restoration of mineral sites to a high standard, such as the Proposed Restoration Policy. Proposed Policies such as these will be used alongside the Proposed Policy for Preferred Areas of Aggregates when determining proposals.</p>                                                                                                   |
| <p>10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.</p>                                                                                                                  | <p>0?</p> | <p>This policy is unlikely to affect this SA Objective, as aggregate workings in Preferred Areas are unlikely to meaningfully protect, conserve or enhance Gloucestershire's material, cultural or recreational assets. However, the proposed policy could support sites which could have potential effects on the access to and the enjoyment of recreational facilities (e.g. Public Rights of Way), however these would be uncertain as the potential for effects will depend on the exact nature and design of the sites within Preferred Areas, and where there is the potential for effects upon recreation they will be temporary. While sites within these areas have been assessed as part of this</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

<sup>41</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions                                                                   | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------------------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                  |          | <p>Sustainability Appraisal, it is still not known what sites may come forward and what the exact proposals will include, this will not be known until the planning application stage. Also, the proposed policy will only permit proposals where all key development criteria of the plan are satisfied. Therefore, this policy is likely to have negligible, uncertain effects on this SA objective.</p> <p>There are also policies that will mitigate the effects on Gloucestershire's material, cultural and recreational assets, such as the Proposed Policy for Public Rights of Way. Proposed Policies such as these will be used alongside the Proposed Policy for Preferred Areas of Aggregates when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                             | +/-?     | <p>The proposed policy may lead to minor negative effects as the continued extraction and/or processing of primary aggregate may uncover and harm geological interests. However, these sites can also potentially contribute to geodiversity by preserving and conserving geological features or making them visible and available for learning opportunities. Also, the proposed policy will only permit proposals where all key development criteria of the plan are satisfied. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites within Preferred Areas. While sites within these areas have been assessed as part of this Sustainability Appraisal, it is still not known what sites may come forward and what the exact proposals will include, this will not be known until the planning application stage. Therefore, the proposed policy is likely to have uncertain, mixed minor positive and minor negative effects on this SA objective.</p> <p>There are also policies that will mitigate effects on geodiversity, thereby protecting and enhancing geodiversity in Gloucestershire, such as the Proposed Policy for Biodiversity and Geodiversity. Proposed Policies such as these will be used alongside the Proposed Policy for Preferred Areas of Aggregates when determining proposals.</p> |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting. | +/-?     | <p>The proposed policy is likely to have minor negative effects on this SA objective, as some aggregate sites (particularly crushed rock) within preferred areas will be intensive and could therefore negatively affect the historic environment (e.g. archaeology), heritage assets and their setting as a result of blasting. However, some sites may not be as an intensive and be able to preserve findings and therefore benefit our understanding of the local archaeology or contribute towards the local vernacular. Also, the proposed policy will only permit proposals where all key development criteria of the plan are satisfied. Also, any effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites within Preferred Areas. While sites within these areas have been assessed as part of this Sustainability Appraisal, it is still not known what sites may come forward and what the exact proposals will include, this will not be known until the planning application stage. Therefore, the proposed policy is</p>                                                                                                                                                                                                                                                                                          |

| SA Objective and Sub Questions                                                                        | SA Score    | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------------------------------------------------------------------------------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                       |             | <p>likely to have uncertain, mixed minor positive/minor negative effects on this SA objective.</p> <p>There are policies that aim to protect and mitigate effects on the Historic Environment, such as the Proposed Policy for the Historic Environment. Proposed Policies such as these will be used alongside the Proposed Policy for Preferred Areas of Aggregates when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <p>13. To prevent flooding, in particular preventing inappropriate development in the floodplain.</p> | <p>0/+?</p> | <p>The proposed policy is expected to have an uncertain, mixed no effect/minor positive effect on flood risk areas, as crushed rock working and processing is classed as less vulnerable, which means they are potentially compatible with all flood zones except for Flood Zone 3b, which they are unlikely to be located within, and are therefore not expected to affect this SA objective. Whereas, sand and gravel extraction sites are classed as water-compatible development and are potentially suitable for all flood zones including 3b, the functional floodplain, and therefore have the potential to increase flood capacity and have minor positive effects on this SA objective. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites within Preferred Areas. While sites within these areas have been assessed as part of this Sustainability Appraisal, it is still not known what sites may come forward and what the exact proposals will include, this will not be known until the planning application stage.</p> <p>There are policies that will mitigate any effects regarding flooding, such as the Proposed Policy for Flood Risk. Proposed Policies such as these will be used alongside the Proposed Policy for Preferred Areas of Aggregates when determining proposals.</p> |
| <p>14. To protect and enhance soil / land quality in Gloucestershire.</p>                             | <p>-?</p>   | <p>Sites which come forward and are supported by this proposed policy are likely to range from small to medium scale (i.e. less than 20ha) to large (i.e. over 20ha). However, the exact land take and location according to agricultural land quality (i.e. Grades 1 – 5), and whether improvements to soil quality through site restoration are possible; will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. Therefore, effects on this SA Objective are likely to be minor negative uncertain.</p> <p>There are policies that aim to protect and enhance soil quality, such as the Proposed Policy for Soils. Proposed Policies such as these will be used alongside the Proposed Policy for Preferred Areas of Aggregates when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                                                                                   | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                                                                                                                                         | -?       | <p>The proposed policy may have a minor negative impact on this SA objective, as the policy supports aggregate operations within Preferred Areas. Therefore, proposals will involve activities (e.g. lorry traffic) that may negatively affect air quality, for example, due to the proximity of sensitive receptors and the distance mineral related traffic has to travel before reaching the proposed highway network. However, the proposed policy will only permit proposals where all key development criteria of the plan are satisfied. Also, any effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites within Preferred Areas. While sites within these areas have been assessed as part of this Sustainability Appraisal, it is still not known what sites may come forward and what the exact proposals will include, this will not be known until the planning application stage. Therefore, the proposed policy could have minor negative, uncertain effects on this SA objective.</p> <p>There are policies that aim to mitigate air quality impacts, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Proposed Policy for Preferred Areas of Aggregates when determining proposals.</p> |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                                                                                       | ?        | <p>While this proposed policy may affect the water quality and quantity in Gloucestershire, at this stage in the planning process it is not possible to determine the impacts of policies such as this on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the brick clay proposal (location, design, method of working etc.), which would be assessed at the planning application stage.</p> <p>There are, however, policies that aim to mitigate impacts on water quality, such as the Proposed Policy for Water Quality. Proposed Policies such as these will be used alongside the Proposed Policy for Preferred Areas of Aggregates when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as: <ul style="list-style-type: none"> <li>a) reducing the need to travel</li> <li>b) promoting more sustainable means of transport e.g. by rail or water</li> <li>c) sensitive lorry routing</li> <li>d) the use of sustainable alternative</li> </ul> | -?       | <p>This proposed policy is likely to have minor negative effects on this SA objective, as the policy supports aggregate operations within Preferred Areas. Therefore, aggregate proposals will involve lorry traffic movements, which at some sites may comprise multiple movements per day. However, the proposed policy will only permit proposals where all key development criteria of the plan are satisfied. Also, the exact location of proposals, traffic levels, lorry routing and access arrangement will not be known until the planning application stage, therefore any effects would also be uncertain as the potential for effects will depend on the exact nature and design of the sites within the identified appropriate areas. While sites within these appropriate areas have been assessed as part of this Sustainability Appraisal, it is still not known what sites may come forward and what the exact proposals will include, this will not be known until the planning</p>                                                                                                                                                                                                                                                                                                                                           |

| SA Objective and Sub Questions                                 | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------------------------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| fuels                                                          |          | <p>application stage.</p> <p>There are policies that aim to mitigate traffic impacts and support sustainable transport, such as the Proposed Policy for Sustainable Transport. Proposed Policies such as these will be used alongside the Proposed Policy for Preferred Areas of Aggregates when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 18. To reduce contributions to and to adapt to Climate Change. | +?       | <p>The proposed policy may have minor positive effects on climate change as it will only permit proposals within Preferred Areas where all key development criteria of the plan are satisfied, including reducing environmental effects. However, at this stage in the planning process it is not possible to determine the impacts of minerals policies on their ability to help reduce contributions to and to adapt to climate change as it will depend on the proposals they are used to determine and how successfully they are implemented, which would not be known until the planning application stage.</p> <p>When determining proposals, the Vision and Strategic Priorities will also be used to help determine proposals, which support reducing climate change impacts via mineral workings and their associated activities. Furthermore, policies such as the Proposed Policy for Sustainable Transport, the Proposed Policy for Biodiversity and Geodiversity, and the Proposed Policy for Mitigation of Environmental Effects all support the Vision and Strategic Priorities in reducing climate change impacts, which will be considered when determining proposals.</p> |

### Proposed Policy for Proposals for the Working of Aggregates Outside of Preferred Areas

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | -?       | <p>The proposed policy may have a minor negative impact on communities and the health and wellbeing of people living and working in Gloucestershire. The policy supports aggregate operations outside of Preferred Areas. Therefore, this may continue to subject communities and people's health and wellbeing to impacts such as dust from blasting/ drilling and other sources (e.g. haul roads, machinery and stockpiles). However, the policy will only permit proposals where: it can be demonstrated that the contribution will address a shortfall in the landbanks; or the proposed operations will result in overriding community benefits in Gloucestershire; or proposals are for small scale operations. Also, any effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which will not be known until the planning application stage. Furthermore, research undertaken for the government in 1995<sup>42</sup> excluded any health effects of dust generated by surface mineral operations, and research for the former Department for the Environment, Transport and the Regions (DETR) found that practice on the assessment and control of noise at surface mineral workings had improved; thereby emphasising that effects are unlikely to be greater than minor. Therefore, the proposed policy could have minor negative, uncertain effects on this SA objective.</p> <p>There are also policies that will mitigate the effects on communities, and on the health and wellbeing of people living and working in Gloucestershire, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Proposed Policy for Proposals for the Working of Aggregates Outside of Preferred Areas when determining proposals.</p> |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -?       | <p>The proposed policy may have a minor negative impact on the local amenity of communities, as the policy supports aggregate operations outside of Preferred Areas. Therefore, this may continue to subject local communities to impacts such as dust from blasting/ drilling and other sources (e.g. haul roads, machinery and stockpiles), vibration, noise and traffic congestion. However, the policy will only permit proposals where: it can be demonstrated that the contribution will address a shortfall in the landbanks; the proposed operations will result in overriding community benefits in Gloucestershire; or proposals are for small scale operations. Also, any effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which will not be known until the planning application stage. Furthermore, research undertaken for the government in 1995<sup>43</sup> excluded any health effects of dust</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

<sup>42</sup> Office of the Deputy Prime Minister (by Arup Environmental/Ove Arup and Partners). The Environmental Effects of Dust from Surface Minerals Workings, 1995.

<sup>43</sup> Office of the Deputy Prime Minister (by Arup Environmental/Ove Arup and Partners). The Environmental Effects of Dust from Surface Minerals Workings, 1995.  
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| SA Objective and Sub Questions                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                                                                                                                                          |          | <p>generated by surface mineral operations, and research for the former Department for the Environment, Transport and the Regions (DETR) found that practice on the assessment and control of noise at surface mineral workings had improved; thereby emphasising that effects are unlikely to be greater than minor. Therefore, the Proposed policy could have minor negative, uncertain effects on this SA objective.</p> <p>There are also policies that will mitigate the effects on the amenity of local communities, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Proposed Policy for Proposals for the Working of Aggregates Outside of Preferred Areas when determining proposals.</p>                                                                                                                          |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds. | +        | <p>Aggregates are important local and national resources and are essential to support sustainable economic growth. They support a wide range of end uses and industries and it is therefore important that there is a sufficient supply of material to supply construction and to provide the infrastructure, buildings, energy and goods that Gloucestershire and the country need. The proposed policy is likely to have a minor positive effect on this SA objective, as it supports aggregate operations outside of Preferred Areas, which will therefore support economic prosperity and make a positive contribution to the local and national economy.</p>                                                                                                                                                                                                                                          |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.            | +        | <p>Aggregates are important local and national resources and support a wide range of end uses and industries. The proposed policy supports the supply of aggregates, which will have a minor positive effect on increasing employment levels.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                       | -?       | <p>The proposed policy supports aggregate operations outside of Preferred Areas. This could therefore include operations for sand and gravel extracted in the Cotswolds Water Park which is located within and in close proximity to the safeguarding zones for RAF Fairford and RAF Brize Norton. Therefore, the proposed policy could have minor negative effects on the safety of commercial or military aerodromes due to the potential for birds to provide a hazard to aircraft, especially as proposals to meet Gloucestershire's needs may be restored to a form of open water use as they may be located close to the Cotswold Water Park. However, the proposed policy will only permit proposals where: it can be demonstrated that the contribution will address a shortfall in the landbanks; or the proposed operations will result in overriding environmental or community benefits in</p> |



| SA Objective and Sub Questions                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                        |          | <p>Gloucestershire; or proposals are for small scale operations. The effects would also be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site outside of the Preferred Areas, which will not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on the safety of aerodromes, such as the Proposed Policy for Safeguarding Aerodromes. Proposed Policies such as these will be used alongside the Proposed Policy for Proposals for the Working of Aggregates Outside of Preferred Areas when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | This policy is unlikely to affect this SA Objective, as aggregate sites permitted under this policy will not be classed as inappropriate development, as they are contributing to the extraction of mineral resources, not limiting the ability to extract resources.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | +/-?     | <p>The proposed policy could potentially lead to negative effects for biodiversity, as proposals could have potential impacts on designated sites, protected species or habitats. However, the proposed policy will only permit proposals where: it can be demonstrated that the contribution will address a shortfall in the landbanks; or the proposed operations will result in overriding environmental or community benefits in Gloucestershire; or proposals are for small scale operations. Also, sites may have the potential to achieve net gains for biodiversity during working or restoration via biodiversity enhancement opportunities that may exist. Therefore, this proposed policy is likely to have mixed, minor positive and minor negative effects on this SA objective. Although, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which will not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on biodiversity, such as the Proposed Policy for Biodiversity and Geodiversity. Proposed Policies such as these will be used alongside the Proposed Policy for Proposals for the Working of Aggregates Outside of Preferred Areas when determining proposals.</p> |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                  | +/-?     | The proposed policy could potentially lead to negative effects for landscape and landscape character, especially as sites (e.g. crushed rock) may be proposed within designated landscapes (e.g. the Cotswolds AONB). Although, it may be appropriate and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| SA Objective and Sub Questions                                                                                                                                                                                            | SA Score  | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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|                                                                                                                                                                                                                           |           | <p>sustainable to make provision in designated landscapes, such as the Cotswold resource area, to meet local provision<sup>44</sup>. However, the proposed policy could also lead to positive effects, as it may lead to the sympathetic restoration of sites which could have positive effects on landscape character. Also, the proposed policy will only permit proposals where: it can be demonstrated that the contribution will address a shortfall in the landbanks; or the proposed operations will result in overriding environmental or community benefits in Gloucestershire; or proposals are for small scale operations. Therefore, this proposed policy is likely to have mixed, minor positive and minor negative effects on this SA objective. Although, the effects would be uncertain as the potential for effects will depend on the exact nature and design of sites, which will not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on landscape, such as the Proposed Landscape Policy. Proposed Policies such as these will be used alongside the Proposed Policy for Proposals for the Working of Aggregates Outside of Preferred Areas when determining proposals.</p> |
| <p>9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible.</p> | <p>+?</p> | <p>In most cases proposals for the extraction of minerals, including aggregates, will have the potential to be restored to a high standard, achieving maximum after use benefits and enhancing the landscape. Also, the proposed policy will only permit proposals where: it can be demonstrated that the contribution will address a shortfall in the landbanks; or the proposed operations will result in overriding environmental or community benefits in Gloucestershire; or proposals are for small scale operations. Therefore, the proposed policy is likely to have minor positive effects on this SA objective. Although, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which will not be known until the planning application stage.</p> <p>There are also policies that will support the restoration of mineral sites to a high standard, such as the Proposed Restoration Policy. Proposed Policies such as these will be used alongside the Proposed Policy for Proposals for the Working of Aggregates Outside of Preferred Areas when determining proposals.</p>                                                                                                      |
| <p>10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.</p>                                                                                                                  | <p>0?</p> | <p>This policy is unlikely to affect this SA Objective, as aggregate workings are unlikely to meaningfully protect, conserve or enhance Gloucestershire's material, cultural or recreational assets. However, the proposed policy could support sites which could have potential effects on the access to and the enjoyment of recreational facilities (e.g. Public Rights of Way), however these would be uncertain as they would not be known until the</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

<sup>44</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions                                                                   | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                                                                                                  |          | <p>planning application stage, and where there is the potential for effects upon recreation they will be temporary. Also, the proposed policy will only permit proposals where: it can be demonstrated that the contribution will address a shortfall in the landbanks; or the proposed operations will result in overriding environmental or community benefits in Gloucestershire; or proposals are for small scale operations. Therefore, this policy is likely to have negligible, uncertain effects on this SA objective.</p> <p>There are also policies that will mitigate the effects on Gloucestershire's material, cultural and recreational assets, such as the Proposed Policy for Public Rights of Way. Proposed Policies such as these will be used alongside the Proposed Policy for Proposals for the Working of Aggregates Outside of Preferred Areas when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                             | +/-?     | <p>The proposed policy may lead to minor negative effects as the continued extraction and/or processing of primary aggregate may uncover and harm geological interests. However, potential sites can also contribute to geodiversity by preserving and conserving geological features or making them visible and available for learning opportunities. Also, the proposed policy will only permit proposals where: it can be demonstrated that the contribution will address a shortfall in the landbanks; or the proposed operations will result in overriding environmental or community benefits in Gloucestershire; or proposals are for small scale operations. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design, and location of sites, which will not be known until the planning application stage. Therefore, the proposed policy is likely to have uncertain, mixed minor positive and minor negative effects on this SA objective.</p> <p>There are also policies that will mitigate effects on geodiversity, thereby protecting and enhancing geodiversity in Gloucestershire, such as the Proposed Policy for Biodiversity and Geodiversity. Proposed Policies such as these will be used alongside the Proposed Policy for Proposals for the Working of Aggregates Outside of Preferred Areas when determining proposals.</p> |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting. | +/-?     | <p>The proposed policy is likely to have minor negative effects on this SA objective, as some aggregate sites (particularly crushed rock) will be intensive and could therefore negatively affect the historic environment (e.g. archaeology), heritage assets and their setting as a result of blasting. However, some sites may not be as an intensive and be able to preserve findings and therefore benefit our understanding of the local archaeology or contribute towards the local vernacular. Also the proposed policy will be</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

| SA Objective and Sub Questions                                                                               | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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|                                                                                                              |          | used alongside other policies within the Local Plan when determining proposals, such as the Proposed Policy for the Historic Environment. Also, the effects would be uncertain as the potential for effects will depend on the exact nature and design, and location of sites, which will not be known until the planning application stage. Therefore, the policy aim is likely to have uncertain, mixed minor positive/minor negative effects on this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.               | 0/+?     | <p>The proposed policy is expected to have an uncertain, mixed no effect/minor positive effect on flood risk areas, as crushed rock working and processing is classed as less vulnerable, which means they are potentially compatible with all flood zones except for Flood Zone 3b, which they are unlikely to be located within, and are therefore not expected to affect this SA objective. Whereas, sand and gravel extraction sites are classed as water-compatible development and are potentially suitable for all flood zones including 3b, the functional floodplain, and therefore have the potential to increase flood capacity and have minor positive effects on this SA objective. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design, and location of the sites, which will not be known until the planning application stage.</p> <p>There are policies that will mitigate any effects regarding flooding, such as the Proposed Policy for Flood Risk. Proposed Policies such as these will be used alongside the Proposed Policy for Proposals for the Working of Aggregates Outside of Preferred Areas when determining proposals.</p> |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                           | -?       | <p>Sites which come forward and are supported by this proposed policy are likely to range from small to medium scale (i.e. less than 20ha) to large (i.e. over 20ha). However, the exact land take and location according to agricultural land quality (i.e. Grades 1 – 5), and whether improvements to soil quality through site restoration are possible; will not be known until the planning application stage. Therefore, effects on this SA Objective are likely to be minor negative uncertain.</p> <p>There are policies that aim to protect and enhance soil quality, such as the Proposed Policy for Soils. Proposed Policies such as these will be used alongside the Proposed Policy for Proposals for the Working of Aggregates Outside of Preferred Areas when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                                                                               |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international | -?       | The proposed policy may have a minor negative impact on this SA objective, as the policy supports aggregate operations outside of Preferred Areas. Therefore, proposals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                                                                                                | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| objectives for air quality.                                                                                                                                                                                                                                                                                                                                                   |          | <p>will involve activities (e.g. lorry traffic) that may negatively affect air quality, for example, due to the proximity of sensitive receptors and the distance mineral related traffic has to travel before reaching the proposed highway network. However, the proposed policy will only permit proposals where it can be demonstrated that the contribution will address a shortfall in the landbanks; or the proposed operations will result in overriding environmental or community benefits in Gloucestershire; or proposals are for small scale operations. Also, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which will not be known until the planning application stage. Therefore, the policy could have minor negative, uncertain effects on this SA objective.</p> <p>There are policies that aim to mitigate air quality impacts, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Proposed Policy for Proposals for the Working of Aggregates Outside of Preferred Areas when determining proposals.</p> |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                                                                                                    | ?        | <p>While this proposed policy may affect the water quality and quantity in Gloucestershire, at this stage in the planning process it is not possible to determine the impacts of policies such as this on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the brick clay proposal (location, design, method of working etc.), which would be assessed at the planning application stage.</p> <p>There are, however, policies that aim to mitigate impacts on water quality, such as the Proposed Policy for Water Quality. Proposed Policies such as these will be used alongside the Proposed Policy for Proposals for the Working of Aggregates Outside of Preferred Areas when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <p>17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:</p> <ul style="list-style-type: none"> <li>a) reducing the need to travel</li> <li>b) promoting more sustainable means of transport e.g. by rail or water</li> <li>c) sensitive lorry routing</li> <li>d) the use of sustainable alternative fuels</li> </ul> | -?       | <p>This proposed policy is likely to have minor negative effects on this SA objective, as the policy supports aggregate operations outside of Preferred Areas. Therefore, aggregate proposals will involve lorry traffic movements, which at some sites may comprise multiple movements per day. However, the proposed policy only permit proposals where it can be demonstrated that the contribution will address a shortfall in the landbanks; or the proposed operations will result in overriding environmental or community benefits in Gloucestershire; or proposals are for small scale operations. Also, the exact location of proposals, traffic levels, lorry routing and access arrangements will not be known until the planning application stage therefore these effects are uncertain.</p> <p>There are policies that aim to mitigate traffic impacts and support sustainable transport, such as the Proposed Policy for Sustainable Transport. Proposed Policies such as these will be used alongside the Proposed Policy for Proposals for the Working of Aggregates Outside of Preferred Areas when determining proposals.</p>                                  |

| SA Objective and Sub Questions                                        | SA Score  | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| <p>18. To reduce contributions to and to adapt to Climate Change.</p> | <p>+?</p> | <p>The proposed policy may have minor positive effects on climate change as proposals will be determined using other policies in the MLP, which seek to reduce environmental effects. For example, when determining proposals, the Vision and Strategic Priorities will also be used, which support reducing climate change impacts via mineral workings and their associated activities. Furthermore, policies such as the Proposed Policy for Sustainable Transport, the Proposed Policy for Biodiversity and Geodiversity, and the Proposed Policy for Mitigation of Environmental Effects all support the Vision and Strategic Priorities in reducing climate change impacts, which will be considered when determining proposals.</p> <p>However, at this stage in the planning process it is not possible to determine the impacts of minerals policies on their ability to help reduce contributions to and to adapt to climate change as it will depend on the proposals they are used to determine and how successfully they are implemented, which would not be known until the planning application stage.</p> |

### Strategic Policy Aim for Alternative Aggregates

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | 0?       | <p>The proposed strategic policy aim supports the development of alternative aggregate facilities in Gloucestershire. In Gloucestershire the main source of alternative aggregates is crushed and screened construction and demolition wastes. Total production of alternative aggregates in 2012 was around 100,000 tonnes.<sup>45</sup></p> <p>The WCS provides a positive steer towards the location of new permanent 'strategic scale' recycled facilities in Zone C (the central corridor in Gloucestershire which embraces the main urban area)<sup>46</sup>. There is also encouragement for other fixed and temporary facilities to be associated with mineral workings. Due to the scale, location and nature of alternative aggregate facilities that this strategic policy aim will support, it is likely that the policy aim will have negligible effects on this SA Objective. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until the planning application stage. Therefore, any effects would be uncertain.</p> <p>This Strategic Policy Aim is supported by other policies that complete the policy framework for alternative aggregates. For example, any facilities are subject to development management policies and criteria in the MLP, aspects of policies in the MLP such as minerals safeguarding, and the Core Policy WCS4 of the adopted Waste Core Strategy. These policies will be used alongside the Strategic Aim for Alternative Aggregates when determining proposals.</p> |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | 0?       | <p>The proposed strategic policy aim supports the development of alternative aggregate facilities in Gloucestershire. In Gloucestershire the main source of alternative aggregates is crushed and screened construction and demolition wastes. Total production of alternative aggregates in 2012 was around 100,000 tonnes.<sup>47</sup></p> <p>The WCS provides a positive steer towards the location of new permanent 'strategic scale' recycled facilities in Zone C (the central corridor in Gloucestershire which embraces the main urban area)<sup>48</sup>. There is also encouragement for other fixed and temporary facilities to be associated with mineral workings. Due to the scale, location and nature of alternative aggregate facilities that this strategic policy aim will support, it is likely that the policy aim will have negligible effects on this SA Objective. However, the effects would be uncertain as the potential for effects will depend on the exact</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

<sup>45</sup> Gloucestershire County Council. Minerals Local Plan Site Options and Draft Policy Framework Consultation Document. June 2014.

<sup>46</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>47</sup> Gloucestershire County Council. Minerals Local Plan Site Options and Draft Policy Framework Consultation Document. June 2014.

<sup>48</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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|                                                                                                                                          |          | <p>nature and design of the sites, which would not be known until the planning application stage. Therefore, any effects would be uncertain.</p> <p>This Strategic Policy Aim is supported by other policies that complete the policy framework for alternative aggregates. For example, any facilities are subject to development management policies and criteria in the MLP, aspects of policies in the MLP such as minerals safeguarding, and the Core Policy WCS4 of the adopted Waste Core Strategy. These policies will be used alongside the Strategic Aim for Alternative Aggregates when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds. | +        | <p>Alternative aggregates are important local and national resources and are essential to support sustainable economic growth. They support a wide range of end uses and industries and it is therefore important that there is a sufficient supply of material to supply construction and to provide the infrastructure, buildings, energy and goods that Gloucestershire and the country need. The policy aim is likely to have a minor positive effect on this SA objective, as it supports the development of alternative aggregate facilities in Gloucestershire, which will therefore support economic prosperity and make a positive contribution to the local and national economy.</p>                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.            | +        | <p>Alternative aggregates are important local resources and support a range of end uses and industries. The policy aim supports the supply of alternative aggregates, which will have a minor positive effect on increasing employment levels.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                       | 0?       | <p>The proposed strategic policy aim supports the development of alternative aggregate facilities in Gloucestershire. The WCS provides a positive steer towards the location of new permanent 'strategic scale' recycled facilities in Zone C (the central corridor in Gloucestershire which embraces the main urban area)<sup>49</sup>. There is also encouragement for other fixed and temporary facilities to be associated with mineral workings, which could include sand and gravel sites in the Cotswolds Water Park, which is located within and in close proximity to the safeguarding zones for RAF Fairford and RAF Brize Norton. However, the policy aim is likely to have negligible effects on this policy, as it is unlikely that alternative aggregate facilities will effect or be restored to a form of water use that may have the potential for birds to provide a hazard to aircraft. Although, the sites these facilities could be located within could be restored to such after uses. Therefore, the effects would be uncertain as the potential for effects will depend on the exact</p> |

<sup>49</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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|                                                                                                                                                                        |          | <p>nature and design of the sites, which would not be known until the planning application stage. Therefore, any effects would be uncertain.</p> <p>This Strategic Policy Aim is supported by other policies that complete the policy framework for alternative aggregates. For example, any facilities are subject to development management policies and criteria in the MLP, aspects of policies in the MLP such as minerals safeguarding, and the Core Policy WCS4 of the adopted Waste Core Strategy. These policies will be used alongside the Strategic Aim for Alternative Aggregates when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                                                                        |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | This policy aim is unlikely to affect this SA Objective, as alternative aggregate facilities permitted under this policy will not be classed as inappropriate development, as they are contributing to the production of alternative aggregates, and will not be located in areas which would sterilise minerals; therefore not limiting the ability to extract resources.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | +/-?     | The policy aim could potentially lead to negative effects for biodiversity, as proposals for alternative aggregates could have potential impacts on designated sites, protected species or habitats. However, the proposals are subject to development management policies and criteria in the MLP, aspects of policies in the MLP such as minerals safeguarding, and the Core Policy WCS4 of the adopted Waste Core Strategy. These policies will be used alongside the Strategic Aim for Alternative Aggregates when determining proposals. Proposals may also have the potential to achieve net gains for biodiversity during working or restoration via biodiversity enhancement opportunities that may exist. Therefore, this policy aim is likely to have mixed, minor positive and minor negative effects on this SA objective. Although, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until the planning application stage. |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                  | +/-?     | The policy aim could potentially lead to negative effects for landscape and landscape character, especially as there is encouragement for fixed and temporary facilities to be associated with mineral workings <sup>50</sup> , which could include crushed rock sites within the AONB. However, the policy aim could also lead to positive effects, as it may lead to the sympathetic restoration of sites which could have positive effects on landscape character. Also, the proposals are subject to development management policies and criteria in the MLP, aspects of policies in the MLP such as minerals safeguarding, and the Core Policy WCS4 of the adopted Waste Core Strategy. These policies will be used alongside the Strategic Aim for Alternative Aggregates when determining proposals.                                                                                                                                                                                                                          |

<sup>50</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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|                                                                                                                                                                                                                    |          | Therefore, this policy aim is likely to have mixed, minor positive and minor negative effects on this SA objective. Although, the effects would be uncertain as the potential for effects will depend on the exact nature and design of sites, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | In most cases proposals for alternative aggregates, especially those associated with mineral workings, will have the potential to be restored to a high standard, achieving maximum after use benefits and enhancing the landscape. Therefore, the policy aim is likely to have minor positive effects on this SA objective, especially as the policy aim will only permit proposals subject to development management policies and criteria in the MLP, aspects of policies in the MLP such as minerals safeguarding, and the Core Policy WCS4 of the adopted Waste Core Strategy. These policies will be used alongside the Strategic Aim for Alternative Aggregates when determining proposals. Although, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until the planning application stage.                                |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | 0        | This policy aim is unlikely to affect this SA Objective, as alternative aggregate proposals are unlikely to meaningfully protect, conserve or enhance Gloucestershire's material, cultural or recreational assets. However, the policy aim could support facilities which could have potential effects on the access to and the enjoyment of recreational facilities (e.g. Public Rights of Way), however these would be uncertain as they would not be known until the planning application stage, and where there is the potential for effects upon recreation they will be temporary. Also, proposals covered by this policy are subject to development management policies and criteria in the MLP, aspects of policies in the MLP such as minerals safeguarding, and the Core Policy WCS4 of the adopted Waste Core Strategy. Therefore, this policy is likely to have negligible, uncertain effects on this SA objective. |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | 0        | No effects are expected on this SA objective as alternative aggregate facilities in Gloucestershire are unlikely to affect geodiversity due to their nature, scale and type of operation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                   | -        | The policy aim is likely to have minor negative effects on this SA objective, as some alternative aggregate facilities are intensive and could therefore negatively affect the heritage assets and their setting due to noise and vibration associated with working. However, proposals are subject to development management policies and criteria in the MLP, aspects of policies in the MLP such as minerals safeguarding, and the Core Policy WCS4 of the adopted Waste Core Strategy. These policies will be used alongside the Strategic Aim for Alternative Aggregates when determining proposals. Also, the effects would be uncertain as the potential for effects will depend on the exact nature and                                                                                                                                                                                                                 |

| SA Objective and Sub Questions                                                                 | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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|                                                                                                |          | design, and location of sites, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain. | 0?       | <p>The policy aim is not expected to have an effect on flood risk areas, as the WCS provides a positive steer towards the location of new permanent 'strategic scale' recycled facilities in Zone C (the central corridor in Gloucestershire which embraces the main urban area), which is located to the east of the flood plain of the River Severn<sup>51</sup> and therefore outside of flood risk zones. Also, there is encouragement for other fixed and temporary facilities to be associated with mineral workings, which is also not expected to effect this SA Objective. As crushed rock working and processing is classed as less vulnerable, which means they are potentially compatible with all flood zones except for Flood Zone 3b, which they are unlikely to be located within. Whereas, sand and gravel extraction sites are classed as water-compatible development and are potentially suitable for all flood zones including 3b, the functional floodplain. Therefore any future alternative aggregate proposals are not expected to affect this SA objective. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design, and location of the sites, which would not be known until the planning application stage.</p> <p>This Strategic Policy Aim is supported by other policies that complete the policy framework for alternative aggregates. For example, any facilities are subject to development management policies and criteria in the MLP, aspects of policies in the MLP such as minerals safeguarding, and the Core Policy WCS4 of the adopted Waste Core Strategy. These policies will be used alongside the Strategic Aim for Alternative Aggregates when determining proposals.</p> |
| 14. To protect and enhance soil / land quality in Gloucestershire.                             | -?       | <p>Facilities which come forward and are supported by this policy aim are likely to range from small to medium scale (i.e. less than 20ha). However, the exact land take and location according to agricultural land quality (i.e. Grades 1 – 5), and whether improvements to soil quality through site restoration are possible; will not be known until the planning application stage, therefore effects on this SA Objective are likely to be minor negative uncertain.</p> <p>This Strategic Policy Aim is supported by other policies that complete the policy framework for alternative aggregates. For example, any facilities are subject to development management policies and criteria in the MLP, aspects of policies in the MLP such as minerals safeguarding, and the Core Policy WCS4 of the adopted Waste Core</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

<sup>51</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions                                                                                                                                                                                                                                                                                                                                   | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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|                                                                                                                                                                                                                                                                                                                                                                  |          | Strategy. These policies will be used alongside the Strategic Aim for Alternative Aggregates when determining proposals.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                                                                                                                                         | -?       | The policy aim may have a minor negative impact on this SA objective, as the aim supports alternative aggregate facilities, which are likely involve activities (e.g. lorry traffic) that may negatively affect air quality, for example, due to the proximity of sensitive receptors and the distance mineral related traffic has to travel before reaching the strategic highway network. However, the proposals are subject to development management policies and criteria in the MLP, aspects of policies in the MLP such as minerals safeguarding, and the Core Policy WCS4 of the adopted Waste Core Strategy. Also, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until the planning application stage. Therefore, the policy aim could have minor negative, uncertain effects on this SA objective.           |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                                                                                       | ?        | <p>While this policy aim may affect the water quality and quantity in Gloucestershire, at this stage in the planning process it is not possible to determine the impacts of policies such as this on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the brick clay proposal (location, design, method of working etc.), which would be assessed at the planning application stage.</p> <p>This Strategic Policy Aim is supported by other policies that complete the policy framework for alternative aggregates. For example, any facilities are subject to development management policies and criteria in the MLP, aspects of policies in the MLP such as minerals safeguarding, and the Core Policy WCS4 of the adopted Waste Core Strategy. These policies will be used alongside the Strategic Aim for Alternative Aggregates when determining proposals.</p> |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as: <ul style="list-style-type: none"> <li>a) reducing the need to travel</li> <li>b) promoting more sustainable means of transport e.g. by rail or water</li> <li>c) sensitive lorry routing</li> <li>d) the use of sustainable alternative</li> </ul> | -?       | This policy aim is likely to have minor negative effects on this SA objective, as while alternative aggregate facilities involve less road miles due to the economics and distances involved in the supply of alternative aggregates <sup>52</sup> ; facilities will involve lorry traffic movements, which as some sites may comprise multiple movements per day. However, proposals are subject to development management policies and criteria in the MLP, aspects of policies in the MLP such as minerals safeguarding, and the Core Policy WCS4 of the adopted Waste Core Strategy. Also, the exact location of proposals, traffic levels, lorry routing and access arrangements will not be known until the planning application stage, therefore these effects are uncertain.                                                                                                                                   |

<sup>52</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions                                 | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| fuels                                                          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 18. To reduce contributions to and to adapt to Climate Change. | +?       | <p>The policy aim may have minor positive effects on climate change as alternative aggregate facilities permitted will support the reduction in primary aggregate extraction, which is an intensive industry which contributes to climate change. The policy aim will also only permit facilities subject to development management policies and criteria in the MLP. However, at this stage in the planning process it is not possible to determine the impacts of minerals policies on their ability to help reduce contributions to and to adapt to climate change as it will depend on the proposals they are used to determine and how successfully they are implemented, which would not be known until the planning application stage.</p> <p>When determining proposals, the Vision and Strategic Priorities will also be used to help determine proposals, which support reducing climate change impacts via mineral workings and their associated activities. Furthermore, policies such as the Proposed Policy for Sustainable Transport, the Proposed Policy for Biodiversity and Geodiversity, and the Proposed Policy for Mitigation of Environmental Effects all support the Vision and Strategic Priorities in reducing climate change impacts, which will be considered when determining proposals.</p> |

### Proposed Policy for Building Stone

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | -?       | <p>Building stone sites are typically small scale operations and are less intensive than aggregates quarries. Therefore, impacts associated with these operations (e.g. dust, noise, and traffic levels) are less likely, and where they do occur they will be less intensive, meaning effects on the health and wellbeing of people living and working in Gloucestershire are likely to be minor. Therefore, this proposed policy is likely to have minor negative effects on this SA objective, however, in some cases there will be negligible or no effects due to the small scale and rural location of building stone workings. The effects would be uncertain as the potential for effects will depend on the exact nature and design of the building stone workings, which would not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on communities, and on the health and wellbeing of people living and working in Gloucestershire, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Proposed Policy for Building Stone when determining proposals for the winning and working of building and roofing stones.</p> |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -?       | <p>Building stone sites are typically small scale operations and are less intensive than aggregates quarries. Therefore, impacts associated with these operations (e.g. dust, noise, vibration and traffic levels) are less likely, and where they do occur they will be less intensive, meaning effects on the amenity of local communities are likely to be minor. Therefore, this proposed policy is likely to have minor negative effects on this SA objective, however, in some cases there will be negligible or no effects due to the small scale and rural location of building stone workings. The effects would be uncertain as the potential for effects will depend on the exact nature and design of the building stone workings, which would not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on the amenity of local communities, , such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Proposed Policy for Building Stone when determining proposals for the winning and working of building and roofing stones.</p>                                                                                         |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social                                                                          | +        | The proposed policy aims to ensure the increase and maintenance of employment in Gloucestershire, making a positive contribution to the rural economy and is therefore                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| SA Objective and Sub Questions                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| and ethnic backgrounds.                                                                                                                                                |          | likely to have minor positive effects on this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +        | The proposed policy aims to ensure the increase and maintenance of employment in Gloucestershire, making a positive contribution to the rural economy and is therefore likely to have minor positive effects on this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | 0        | This proposed policy is unlikely to effect this SA Objective, as building stone sites are likely to be located outside of aerodrome safeguarding areas.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | This proposed policy is unlikely to effect this SA Objective, as building stone sites permitted under this policy will not be classed as inappropriate development, as they are contributing to the extraction of mineral resources, not limiting the ability to extract resources.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | +/-?     | <p>The proposed policy could potentially lead to negative effects for biodiversity, as proposals for the winning and working of building and roofing stones could have potential impacts on designated sites, protected species or habitats. However, the policy could also lead to positive effects, as building stone sites may have the potential to achieve net gains for biodiversity during working or restoration via biodiversity enhancement opportunities that may exist. Therefore, this proposed policy is likely to have mixed, minor positive and minor negative effects on this SA objective. Although, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the building stone workings, which would not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on biodiversity, such as the Proposed Policy for Biodiversity and Geodiversity. Proposed Policies such as these will be used alongside the Proposed Policy for Building Stone when determining proposals for the winning and working of building and roofing stones.</p> |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                  | +/-?     | The proposed policy could potentially lead to negative effects for landscape designations and landscape character, as there is an extremely close relationship between Gloucestershire's AONB designations and deposits of natural building and roofing stones,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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|                                                                                                                                                                                                                    |          | <p>meaning that proposals for the winning and working of building and roofing stones are likely to be located within the AONBs in Gloucestershire, such as the Cotswolds AONB<sup>53</sup>. Although, it is the use of natural stone within elements of the local built environment that has helped define the special qualities of each designation. However, the policy could also lead to positive effects, as building stone sites are small scale and less likely to have a visual impact on the landscape, and the use of natural local stones will be protect and enhance the local landscape and setting of designations. Furthermore, the policy may lead sympathetic restoration of sites which could have positive effects on landscape character.</p> <p>Therefore, this proposed policy is likely to have mixed, minor positive and minor negative effects on this SA objective. Although, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the building stone workings, which would not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on landscape, such as the Proposed Landscape Policy. Proposed Policies such as these will be used alongside the Proposed Policy for Building Stone when determining proposals for the winning and working of building and roofing stones.</p> |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +?       | <p>In most cases proposals for the winning and working of natural building and roofing stones will have the potential to be restored to a high standard, achieving maximum after use benefits and enhancing the landscape. Therefore, the proposed policy is likely to have minor positive effects on this SA objective. Although, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the building stone workings, which would not be known until the planning application stage.</p> <p>There are also policies that will support the restoration of mineral sites to a high standard, such as the Proposed Restoration Policy. Proposed Policies such as these will be used alongside the Proposed Policy for Building Stone when determining proposals for the winning and working of building and roofing stones.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | +?       | <p>The proposed policy will help to conserve and maintain the local distinctiveness of Gloucestershire and support the use of traditional, local building stones, thereby conserving and enhancing Gloucestershire's material, cultural and recreational assets. Although, the policy may permit sites which could have potential effects on the access to and the enjoyment of recreational facilities (e.g. Public Rights of Way), however these would be uncertain as they would not be known until the planning application stage, and</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

<sup>53</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions                                                                   | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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|                                                                                                  |          | <p>where there is the potential for effects upon recreation they will be temporary. Therefore, this policy is likely to have minor positive, uncertain effects on this SA objective.</p> <p>There are also policies that will mitigate the effects on Gloucestershire's material, cultural and recreational assets, such as the Proposed Policy for Public Rights of Way. Proposed Policies such as these will be used alongside the Proposed Policy for Building Stone when determining proposals for the winning and working of building and roofing stones.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                             | +/-?     | <p>The use of this policy may lead to minor negative effects as the working and winning of building and roofing stone may uncover and harm geological interests. However, these sites can also potentially contribute to geodiversity by preserving and conserving geological features, which is more likely to occur at less intensive mineral sites such as building and roofing stone. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design, and location of the building stone workings, which would not be known until the planning application stage. Therefore, the proposed policy is likely to have uncertain, mixed minor positive and minor negative effects on this SA objective.</p> <p>There are also policies that will mitigate effects on geodiversity, thereby protecting and enhancing geodiversity in Gloucestershire, such as the Proposed Policy for Biodiversity and Geodiversity. Proposed Policies such as these will be used alongside the Proposed Policy for Building Stone when determining proposals for the winning and working of building and roofing stones.</p> |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting. | ++/-?    | <p>The proposed policy will help to conserve the historic environment in Gloucestershire and maintain its local distinctiveness, in some cases conserving buildings using similar, local building stones, thereby conserving and enhancing Gloucestershire's historic environment, heritage assets and their setting. Sites permitted by the policy may also be able to preserve findings and therefore benefit our understanding of the local archaeology. However, the proposed policy may also have minor negative effects on this SA objective, as some sites may involve activities that could negatively affect the historic environment (e.g. archaeology), heritage assets and their setting due to transport, noise or vibration, or extraction methods. However, the proposed policy will be used alongside other policies within the Local Plan when determining proposals, such as the Proposed Policy for the Historic Environment. Also, the effects would be uncertain as the potential for effects will depend on the exact nature and design, and location of</p>                                                                            |

| SA Objective and Sub Questions                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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|                                                                                                                                          |          | sites, which will not be known until the planning application stage. Therefore, the policy aim is likely to have uncertain, mixed significant positive/minor negative effects on this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                           | 0?       | <p>The proposed policy is not expected to have an effect on flood risk areas, as minerals working and processing (except sand &amp; gravel working) are classed as less vulnerable, which means they are potentially compatible with all flood zones except for Flood Zone 3b, which building and roofing sites are unlikely to be located in. However, this would not be known until the planning application stage.</p> <p>There are policies that will mitigate any effects regarding flooding, such as the Proposed Policy for Flood Risk. Proposed Policies such as these will be used alongside the Proposed Policy for Building Stone when determining proposals for the winning and working of building and roofing stones.</p>                                                     |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                       | -?       | <p>This policy is likely to permit small to medium scale (i.e. less than 20ha) building and roofing stone sites. However, the exact land take and location according to agricultural land quality (i.e. Grades 1 – 5), and whether improvements to soil quality through site restoration are possible; will not be known until the planning application stage, therefore effects on this SA Objective are likely to be minor negative uncertain.</p> <p>There are policies that aim to protect and enhance soil quality, such as the Proposed Policy for Soils. Proposed Policies such as these will be used alongside the Proposed Policy for Building Stone when determining proposals for the winning and working of building and roofing stones.</p>                                    |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality. | +/-?     | This proposed policy is likely to have mixed minor positive, minor negative effects on this SA objective. As building and roofing stone sites are predominantly located in the AONBs within Gloucestershire <sup>54</sup> , which are rural locations, and in most cases are not located on the primary road network, thereby increasing the mileage of associated traffic movements and their associated emissions. However, the levels of traffic associated with building and roofing stone sites is less than other mineral workings due to the lower annual tonnages worked, thereby reducing the level of emissions. Although, the exact location of proposals and levels of emissions will not be known until the planning application stage, therefore these effects are uncertain. |

<sup>54</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions                                                                                                                                                                                                                                                                                               | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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|                                                                                                                                                                                                                                                                                                                              |          | There are policies that aim to mitigate air quality impacts, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Proposed Policy for Building Stone when determining proposals for the winning and working of building and roofing stones.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                                                   | ?        | <p>While this proposed policy may affect the water quality and quantity in Gloucestershire, at this stage in the planning process it is not possible to determine the impacts of policies such as this on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the building and roofing stone proposal (location, design, method of working etc.), which would be assessed at the planning application stage.</p> <p>There are, however, policies that aim to mitigate impacts on water quality, such as the Proposed Policy for Water Quality. Proposed Policies such as these will be used alongside the Proposed Policy for Building Stone when determining proposals for the winning and working of building and roofing stones.</p>                                                                                                                                                                                                                                                                                                                             |
| <p>17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:</p> <p>a) reducing the need to travel</p> <p>b) promoting more sustainable means of transport e.g. by rail or water</p> <p>c) sensitive lorry routing</p> <p>d) the use of sustainable alternative fuels</p> | +/-?     | <p>This proposed policy is likely to have mixed minor positive, minor negative effects on this SA objective. As building and roofing stone sites are predominantly located in the AONBs within Gloucestershire<sup>55</sup>, which are rural locations, and in most cases are not located on the primary road network, thereby increasing the mileage of associated lorry traffic movements. However, the levels of lorry traffic associated with building and roofing stone sites is less than other mineral workings due to the lower annual tonnages worked. Although, the exact location of proposals, traffic levels, lorry routing and access arrangements will not be known until the planning application stage, therefore these effects are uncertain.</p> <p>There are policies that aim to mitigate traffic impacts and support sustainable transport, such as the Proposed Policy for Sustainable Transport. Proposed Policies such as these will be used alongside the Proposed Policy for Building Stone when determining proposals for the winning and working of building and roofing stones.</p> |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                                               | +        | The proposed policy will have minor positive effects on climate change as it supports the working and winning of the county's key natural building and roofing stones to maintain its local distinctiveness. This therefore supports local stone for local need, potentially reducing the need for the importation of stone into the county. However, to what degree this policy will reduce the need for imported stone is uncertain. Furthermore, at this stage in the planning process it is not possible to determine the impacts of minerals policies on their ability to help reduce contributions to and to adapt to climate change as it will depend on the proposals they are used to determine and how successfully they are                                                                                                                                                                                                                                                                                                                                                                            |

<sup>55</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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|                                |          | <p>implemented, which would not be known until the planning application stage.</p> <p>When determining proposals for the winning and working of building and roofing stones, the Vision and Strategic Priorities will also be used to help determine proposals, which support reducing climate change impacts via mineral workings and their associated activities. Furthermore, policies such as the Proposed Policy for Sustainable Transport, the Proposed Policy for Biodiversity and Geodiversity, and the Proposed Policy for Mitigation of Environmental Effects all support the Vision and Strategic Priorities in reducing climate change impacts, which will be considered when determining proposals.</p> |

### Proposed Policy for Brick Clay

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | -?       | <p>Clay sites, due to their methods of extraction, and low outputs are typically less intensive than other minerals worked in Gloucestershire. Also, on a county scale the industry is very small when compared to other minerals currently worked<sup>56</sup>. Although, the associated works where clay is used to make brick, may be visually intrusive and arising from this the operation of the plant and the distribution of the finished products can cause noise and traffic problems<sup>57</sup>. Therefore, overall the effects on the health and wellbeing of people living and working in Gloucestershire are likely to be minor. Therefore, this proposed policy is likely to have minor negative effects on this SA objective, however, in some cases there will be negligible or no effects due to the small scale and low intensity associate with brick clay workings. The effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on communities, and on the health and wellbeing of people living and working in Gloucestershire, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Proposed Policy for Brick Clay when determining proposals for the extraction of brick clay.</p> |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | 0?       | <p>The proposed policy aims to safeguard the amenity of local communities by only permitting proposals for the extraction of brick clay subject to no adverse amenity impacts. Therefore, the proposed policy is likely to have negligible effects on this SA objective. Although, the effects will be uncertain as the associated works where clay is used to make brick, may be visually intrusive and arising from this the operation of the plant and the distribution of the finished products can cause noise and traffic problems, thereby impacting on the amenity of local communities<sup>58</sup>. However, the potential for effects will depend on the exact nature and design of the sites, which would not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on the amenity of local communities, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Proposed Policy for Brick Clay when determining proposals for the extraction of brick clay.</p>                                                                                                                                                                                                                                                                                                                                                                   |

<sup>56</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>57</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>58</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
Gloucestershire Minerals Local Plan SA

| SA Objective and Sub Questions                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                               | 0        | Clay is an important national resource and supports a manufacturing industry of considerable importance which has a high value added content <sup>59</sup> . However, the proposed policy is likely to have no effect on this SA objective, as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to proposals being self-served by the operators behind them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +        | Clay is an important national resource and as the proposed policy supports future brick clay sites, subject to no adverse impacts arising, it supports the potential provision of employment opportunities in the County. Therefore, the proposed policy is likely to have a minor positive effect on this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | 0        | This proposed policy is unlikely to affect this SA Objective, as brick clay sites are likely to be located outside of aerodrome safeguarding areas.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | This proposed policy is unlikely to affect this SA Objective, as brick clay sites permitted under this policy will not be classed as inappropriate development, as they are contributing to the extraction of mineral resources, not limiting the ability to extract resources.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | +/-?     | <p>The proposed policy could potentially lead to negative effects for biodiversity, as proposals for the extraction of brick clay could have potential impacts on designated sites, protected species or habitats. However, the policy will only permit proposals subject to no adverse environmental impacts arising, and could also lead to positive effects, as brick clay sites may have the potential to achieve net gains for biodiversity during working or restoration via biodiversity enhancement opportunities that may exist. Therefore, this proposed policy is likely to have mixed, minor positive and minor negative effects on this SA objective. Although, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the brick clay sites, which would not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on biodiversity, such as the Proposed Policy for Biodiversity and Geodiversity. Proposed Policies such as these will be used alongside the Proposed Policy for Brick Clay when determining proposals for the</p> |

<sup>59</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                    |          | extraction of brick clay                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | +/-?     | <p>The proposed policy could potentially lead to negative effects for landscape and landscape character, as associated works where clay is used to make brick, may be visually intrusive<sup>60</sup>. However, the policy could also lead to positive effects, as it may lead to the sympathetic restoration of sites which could have positive effects on landscape character. Also, the proposed policy will only permit proposals for the extraction of brick clay where no adverse impacts arise from the proposals. Therefore, this proposed policy is likely to have mixed, minor positive and minor negative effects on this SA objective. Although, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the brick clay sites, which would not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on landscape, such as the Proposed Landscape Policy. Proposed Policies such as these will be used alongside the Proposed Policy for Brick Clay when determining proposals for the extraction of brick clay.</p> |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +?       | <p>In most cases proposals for the extraction of minerals, including brick clay, will have the potential to be restored to a high standard, achieving maximum after use benefits and enhancing the landscape. Therefore, the proposed policy is likely to have minor positive effects on this SA objective. Although, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the brick clay sites, which would not be known until the planning application stage.</p> <p>There are also policies that will support the restoration of mineral sites to a high standard, such as the Proposed Restoration Policy. Proposed Policies such as these will be used alongside the Proposed Policy for Brick Clay when determining proposals for the extraction of brick clay.</p>                                                                                                                                                                                                                                                                                                            |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | 0?       | <p>This proposed policy is unlikely to affect this SA Objective, as clay sites are unlikely to meaningfully protect, conserve or enhance Gloucestershire's material, cultural or recreational assets. However, the policy could permit sites which could have potential effects on the access to and the enjoyment of recreational facilities (e.g. Public Rights of Way), however these would be uncertain as they would not be known until the planning application stage, and where there is the potential for effects upon recreation they will be temporary. Also, the proposed policy will only permit proposals for the extraction of brick clay where no adverse impacts arise from the proposals. Therefore, this policy is likely to have negligible, uncertain effects on this SA objective.</p>                                                                                                                                                                                                                                                                                                                               |

<sup>60</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions                                                                          | SA Score    | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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|                                                                                                         |             | <p>There are also policies that will mitigate the effects on Gloucestershire's material, cultural and recreational assets, such as the Proposed Policy for Public Rights of Way. Proposed Policies such as these will be used alongside the Proposed Policy for Brick Clay when determining proposals for the extraction of brick clay.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <p>11. To protect conserve and enhance geodiversity in Gloucestershire.</p>                             | <p>+/-?</p> | <p>The use of this policy may lead to minor negative effects as the extraction of clay may uncover and harm geological interests. However, these sites can also potentially contribute to geodiversity by preserving and conserving geological features, which is more likely to occur at less intensive mineral sites such as clay. Also, the proposed policy will only permit proposals for the extraction of brick clay where no adverse impacts arise from the proposals. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design, and location of the brick clay sites, which would not be known until the planning application stage. Therefore, the proposed policy is likely to have uncertain, mixed minor positive and minor negative effects on this SA objective.</p> <p>There are also policies that will mitigate effects on geodiversity, thereby protecting and enhancing geodiversity in Gloucestershire, such as the Proposed Policy for Biodiversity and Geodiversity. Proposed Policies such as these will be used alongside the Proposed Policy for Brick Clay when determining proposals for the extraction of brick clay.</p> |
| <p>12. To protect conserve and enhance the historic environment, heritage assets and their setting.</p> | <p>0?</p>   | <p>The proposed policy is unlikely to affect this SA Objective, as clay sites are less intensive than other minerals worked in Gloucestershire. Also, on a county scale the industry is very small when compared to other minerals currently worked. Although, while the associated works where clay is used to make brick, may be visually intrusive and arising from this the operation of the plant and the distribution of the finished products can cause noise and traffic problems; the proposed policy will only permit proposals for the extraction of brick clay where no adverse impacts arise from the proposals. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design, and location of the brick clay sites, which would not be known until the planning application stage.</p> <p>There are policies that aim to protect and mitigate effects on the Historic Environment, such as the Proposed Policy for the Historic Environment. Proposed Policies such as these will be used alongside the Proposed Policy for Brick Clay when determining proposals for the extraction of brick clay.</p>                                     |



| SA Objective and Sub Questions                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                           | 0?       | <p>The proposed policy is not expected to have an effect on flood risk areas, as minerals working and processing (except sand &amp; gravel working) are classed as less vulnerable, which means they are potentially compatible with all flood zones except for Flood Zone 3b, which brick clay sites are unlikely to be located in. Also, the proposed policy will only permit proposals for the extraction of brick clay where no adverse impacts arise from the proposals. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design, and location of the clay sites, which would not be known until the planning application stage.</p> <p>There are policies that will mitigate any effects regarding flooding, such as the Proposed Policy for Flood Risk. Proposed Policies such as these will be used alongside the Proposed Policy for Brick Clay when determining proposals for the extraction of brick clays.</p> |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                       | -?       | <p>This policy is likely to permit small to medium scale (i.e. less than 20ha) clay sites. However, the exact land take and location according to agricultural land quality (i.e. Grades 1 – 5), and whether improvements to soil quality through site restoration are possible; will not be known until the planning application stage, therefore effects on this SA Objective are likely to be minor negative uncertain.</p> <p>There are policies that aim to protect and enhance soil quality, such as the Proposed Policy for Soils. Proposed Policies such as these will be used alongside the Proposed Policy for Brick Clay when determining proposals for the extraction of brick clays.</p>                                                                                                                                                                                                                                                                              |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality. | 0?       | <p>This proposed policy is likely to have negligible effects on this SA objective as clay sites have low outputs thereby generating minimal traffic, which in turn will have a negligible impact on air quality. Also, the proposed policy will only permit proposals for the extraction of brick clay where no adverse impacts arise from the proposals. However, the exact location of proposals and levels of emissions will not be known until the planning application stage, therefore these effects are uncertain.</p> <p>There are policies that aim to mitigate air quality impacts, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Proposed Policy for Brick Clay when determining proposals for the extraction of brick clay.</p>                                                                                                                                                      |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise    | ?        | <p>While this proposed policy may affect the water quality and quantity in Gloucestershire, at this stage in the planning process it is not possible to determine the impacts of policies such as this on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the brick clay proposal (location, design,</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                                               | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| sustainable sources of water supply.                                                                                                                                                                                                                                                                                         |          | <p>method of working etc.), which would be assessed at the planning application stage.</p> <p>There are, however, policies that aim to mitigate impacts on water quality, such as the Proposed Policy for Water Quality. Proposed Policies such as these will be used alongside the Proposed Policy for Brick Clay when determining proposals for the extraction of brick clay.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <p>17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:</p> <p>a) reducing the need to travel</p> <p>b) promoting more sustainable means of transport e.g. by rail or water</p> <p>c) sensitive lorry routing</p> <p>d) the use of sustainable alternative fuels</p> | +        | <p>This proposed policy is likely to have minor positive effects on this SA objective. As the levels of lorry traffic associated with clay sites is less than other mineral workings due to the lower outputs. Also, the proposed policy will only permit proposals for the extraction of brick clay where no adverse impacts arise from the proposals. Although, the exact location of proposals, traffic levels, lorry routing and access arrangements will not be known until the planning application stage, therefore these effects are uncertain.</p> <p>There are policies that aim to mitigate traffic impacts and support sustainable transport, such as the Proposed Policy for Sustainable Transport. Proposed Policies such as these will be used alongside the Proposed Policy for Brick Clay when determining proposals for the extraction of brick clay.</p>                                                                                                                                                                                                                                                                                                        |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                                               | +        | <p>The proposed policy will have minor positive effects on climate change as it will only permit proposals for the extraction of brick clay where no adverse impacts arise from the proposals. However, at this stage in the planning process it is not possible to determine the impacts of minerals policies on their ability to help reduce contributions to and to adapt to climate change as it will depend on the proposals they are used to determine and how successfully they are implemented, which would not be known until the planning application stage.</p> <p>When determining proposals for the extraction of brick clay, the Vision and Strategic Priorities will also be used to help determine proposals, which support reducing climate change impacts via mineral workings and their associated activities. Furthermore, policies such as the Proposed Policy for Sustainable Transport, the Proposed Policy for Biodiversity and Geodiversity, and the Proposed Policy for Mitigation of Environmental Effects all support the Vision and Strategic Priorities in reducing climate change impacts, which will be considered when determining proposals.</p> |

### Proposed Policy for Engineering Clay

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | 0?       | <p>Clay sites, due to their methods of extraction, and low outputs are typically less intensive than other minerals worked in Gloucestershire. Also, on a county scale the industry is very small when compared to other minerals currently worked<sup>61</sup>. Applications will also only be permitted where the requirements of the general minerals policies of the plan are satisfied. Therefore, overall the effects on the health and wellbeing of people living and working in Gloucestershire are likely to be negligible. Therefore, this proposed policy is likely to have negligible effects on this SA objective. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on communities, and on the health and wellbeing of people living and working in Gloucestershire, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Proposed Policy for Engineering Clay when determining proposals.</p> |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | 0?       | <p>Clay sites, due to their methods of extraction, and low outputs are typically less intensive than other minerals worked in Gloucestershire. Also, on a county scale the industry is very small when compared to other minerals currently worked<sup>62</sup>. Applications will also only be permitted where the requirements of the general minerals policies of the plan are satisfied. Therefore, overall the effects on the amenity of local communities in Gloucestershire are likely to be negligible. Therefore, this proposed policy is likely to have negligible effects on this SA objective. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on the amenity of local communities, in Gloucestershire, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Proposed Policy for Engineering Clay when determining proposals.</p>                                                              |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                                                  | 0        | <p>Clay is an important national resource and supports a manufacturing industry of considerable importance which has a high value added content<sup>63</sup>. However, the proposed policy is likely to have no effect on this SA objective, as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

<sup>61</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>62</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>63</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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|                                                                                                                                                                        |          | proposals being self-served by the operators behind them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +        | Clay is an important national resource and as the proposed policy supports future extraction of clay for engineering purposes, subject to other criteria, it supports the potential provision of employment opportunities in the County. Therefore, the proposed policy is likely to have a minor positive effect on this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | 0        | This proposed policy is unlikely to affect this SA Objective, as the extraction of clay for engineering purposes is likely to be located outside of aerodrome safeguarding areas.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | This proposed policy is unlikely to affect this SA Objective, as the extraction of clay for engineering purposes under this policy will not be classed as inappropriate development, as they are contributing to the extraction of mineral resources, not limiting the ability to extract resources.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | +/-?     | <p>The proposed policy could potentially lead to negative effects for biodiversity, as proposals for the extraction of clay for engineering purposes could have potential impacts on designated sites, protected species or habitats. However, the policy will only permit proposals where the requirements of the general minerals policies of the plan are satisfied, and could also lead to positive effects, as sites may have the potential to achieve net gains for biodiversity during working or restoration via biodiversity enhancement opportunities that may exist. Therefore, this proposed policy is likely to have mixed, minor positive and minor negative effects on this SA objective. Although, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on biodiversity, such as the Proposed Policy for Biodiversity and Geodiversity. Proposed Policies such as these will be used alongside the Proposed Policy for Engineering Clay when determining proposals.</p> |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                  | +/-?     | The proposed policy could potentially lead to negative effects for landscape and landscape character. However, the policy could also lead to positive effects, as it may lead to the sympathetic restoration of sites which could have positive effects on landscape character, especially as the policy requires applications to meet specific restoration requirements, such as phased restoration of sites within an acceptable timeframe. Also, the proposed policy will only permit proposals where the requirements of the general minerals policies of the plan are satisfied. Therefore, this proposed policy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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|                                                                                                                                                                                                                    |          | <p>is likely to have mixed, minor positive and minor negative effects on this SA objective. Although, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on landscape, such as the Proposed Landscape Policy. Proposed Policies such as these will be used alongside the Proposed Policy for Engineering Clay when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | <p>In most cases proposals for the extraction of minerals, including clay for engineering purposes, will have the potential to be restored to a high standard, achieving maximum after use benefits and enhancing the landscape. The proposed policy requires applications to meet specific restoration requirements, such as phased restoration of sites within an acceptable timeframe. Also, the proposed policy will only permit proposals where the requirements of the general minerals policies of the plan are satisfied. Therefore, the proposed policy is likely to have minor positive effects on this SA objective. Although, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until the planning application stage.</p> <p>There are also policies that will support the restoration of mineral sites to a high standard, such as the Proposed Restoration Policy. Proposed Policies such as these will be used alongside the Proposed Policy for Engineering Clay when determining proposals.</p>                |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | 0        | <p>This proposed policy is unlikely to affect this SA Objective, as clay sites are unlikely to meaningfully protect, conserve or enhance Gloucestershire's material, cultural or recreational assets. However, the policy could permit sites which could have potential effects on the access to and the enjoyment of recreational facilities (e.g. Public Rights of Way), however these would be uncertain as they would not be known until the planning application stage, and where there is the potential for effects upon recreation they will be temporary. Also, the proposed policy will only permit proposals where the requirements of the general minerals policies of the plan are satisfied. Therefore, this policy is likely to have negligible, uncertain effects on this SA objective.</p> <p>There are also policies that will mitigate the effects on Gloucestershire's material, cultural and recreational assets, such as the Proposed Policy for Public Rights of Way. Proposed Policies such as these will be used alongside the Proposed Policy for Engineering Clay when determining proposals.</p> |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | +/-      | <p>The use of this policy may lead to minor negative effects as the extraction of clay may</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

| SA Objective and Sub Questions                                                                   | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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|                                                                                                  |          | <p>uncover and harm geological interests. However, these sites can also potentially contribute to geodiversity by preserving and conserving geological features, which is more likely to occur at less intensive mineral sites such as clay. Also, the proposed policy will only permit proposals where the requirements of the general minerals policies of the plan are satisfied. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design, and location of the clay sites, which would not be known until the planning application stage. Therefore, the proposed policy is likely to have uncertain, mixed minor positive and minor negative effects on this SA objective.</p> <p>There are also policies that will mitigate effects on geodiversity, thereby protecting and enhancing geodiversity in Gloucestershire, such as the Proposed Policy for Biodiversity and Geodiversity. Proposed Policies such as these will be used alongside the Proposed Policy for Engineering Clay when determining proposals.</p> |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting. | 0?       | <p>The proposed policy is unlikely to affect this SA Objective, as clay sites are less intensive than other minerals worked in Gloucestershire. Also, on a county scale the industry is very small when compared to other minerals currently worked<sup>64</sup>. Applications will also only be permitted where the requirements of the general minerals policies of the plan are satisfied. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design, and location of the clay sites, which would not be known until the planning application stage.</p> <p>There are policies that aim to protect and mitigate effects on the Historic Environment, such as the Proposed Policy for the Historic Environment. Proposed Policies such as these will be used alongside the Proposed Policy for Engineering Clay when determining proposals.</p>                                                                                                                                                                            |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.   | 0?       | <p>The proposed policy is not expected to have an effect on flood risk areas, as minerals working and processing (except sand &amp; gravel working) are classed as less vulnerable, which means they are potentially compatible with all flood zones except for Flood Zone 3b, which sites for clay for engineering purposes are unlikely to be located in. Also, the proposed policy will only permit proposals where the requirements of the general minerals policies of the plan are satisfied. However, the effects would be uncertain as</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

<sup>64</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions                                                                                                                                             | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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|                                                                                                                                                                            |          | <p>the potential for effects will depend on the exact nature and design, and location of the clay sites, which would not be known until the planning application stage.</p> <p>There are policies that will mitigate any effects regarding flooding, such as the Proposed Policy for Flood Risk. Proposed Policies such as these will be used alongside the Proposed Policy for Engineering Clay when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                                  |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                         | -?       | <p>This policy is likely to permit small to medium scale (i.e. less than 20ha) clay sites. However, the exact land take and location according to agricultural land quality (i.e. Grades 1 – 5), and whether improvements to soil quality through site restoration are possible; will not be known until the planning application stage, therefore effects on this SA Objective are likely to be minor negative uncertain.</p> <p>There are policies that aim to protect and enhance soil quality, such as the Proposed Policy for Soils. Proposed Policies such as these will be used alongside the Proposed Policy for Engineering Clay when determining proposals.</p>                                                                                                                         |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                   | 0?       | <p>This proposed policy is likely to have negligible effects on this SA objective as clay sites have low outputs thereby generating minimal traffic, which in turn will have a negligible impact on air quality. Also, the proposed policy will only permit proposals where the requirements of the general minerals policies of the plan are satisfied. However, the exact location of proposals and levels of emissions will not be known until the planning application stage, therefore these effects are uncertain.</p> <p>There are policies that aim to mitigate air quality impacts, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Proposed Policy for Engineering Clay when determining proposals.</p> |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply. | ?        | <p>While this proposed policy may affect the water quality and quantity in Gloucestershire, at this stage in the planning process it is not possible to determine the impacts of policies such as this on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the engineering clay proposal (location, design, method of working etc.), which would be assessed at the planning application stage.</p> <p>There are, however, policies that aim to mitigate impacts on water quality, such as the Proposed Policy for Water Quality. Proposed Policies such as these will be used alongside the Proposed Policy for Engineering Clay when determining proposals.</p>                                                                                |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:                                                               | +?       | <p>This proposed policy is likely to have minor positive effects on this SA objective. As the levels of lorry traffic associated with clay sites is less than other mineral workings due to the lower outputs. Also, the proposed policy will only permit proposals where the</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| SA Objective and Sub Questions                                                                                                                                                        | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels |          | <p>requirements of the general minerals policies of the plan are satisfied. Although, the exact location of proposals, traffic levels, lorry routing and access arrangements will not be known until the planning application stage, therefore these effects are uncertain.</p> <p>There are policies that aim to mitigate traffic impacts and support sustainable transport, such as the Proposed Policy for Sustainable Transport. Proposed Policies such as these will be used alongside the Proposed Policy for Engineering Clay when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                        | +?       | <p>The proposed policy will have minor positive effects on climate change as it will only permit proposals where the requirements of the general minerals policies of the plan are satisfied. General policies, such as the Vision and Strategic Priorities support reducing climate change impacts. However, at this stage in the planning process it is not possible to determine the impacts of minerals policies on their ability to help reduce contributions to and to adapt to climate change as it will depend on the proposals they are used to determine and how successfully they are implemented, which would not be known until the planning application stage.</p> <p>When determining proposals for the extraction of clay, the Vision and Strategic Priorities will also be used to help determine proposals, which support reducing climate change impacts via mineral workings and their associated activities. Furthermore, policies such as the Proposed Policy for Sustainable Transport, the Proposed Policy for Biodiversity and Geodiversity, and the Proposed Policy for Mitigation of Environmental Effects all support the Vision and Strategic Priorities in reducing climate change impacts, which will be considered when determining proposals.</p> |



### Proposed Policy for Small Scale Coal Underground Mines

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | 0?       | <p>The coal industry in Gloucestershire is small scale, comprising freemining operations, which are intermittently operated and are localised in the Forest of Dean<sup>65</sup>. Operations therefore typically have low environmental impacts in terms dust on communities and their health and wellbeing. The proposed policy will only permit small scale underground mines where they are acceptable in accordance with other policies of this plan. Overall the effects on the health and wellbeing of people living and working in Gloucestershire are likely to be negligible. Therefore, this proposed policy is likely to have negligible effects on this SA objective. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on communities, and on the health and wellbeing of people living and working in Gloucestershire, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Proposed Policy for Small Scale Coal Underground Mines when determining proposals.</p> |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | 0?       | <p>The coal industry in Gloucestershire is small scale, comprising freemining operations, which are intermittently operated and are localised in the Forest of Dean<sup>66</sup>. Operations therefore typically have low environmental impacts in terms of noise, dust and traffic on the amenity of local communities. The proposed policy will only permit small scale underground mines where they are acceptable in accordance with other policies of this plan. Overall the effects on the amenity of local communities in Gloucestershire are likely to be negligible. Therefore, this proposed policy is likely to have negligible effects on this SA objective. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on the amenity of local communities, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Proposed Policy for Small Scale Coal Underground Mines when determining proposals.</p>                                                                      |
| 3. To promote sustainable economic development in Gloucestershire giving                                                                                                                  | 0        | Coal mining provides low but nevertheless important contributions to the local economy.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

<sup>65</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>66</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| opportunities to people from all social and ethnic backgrounds.                                                                                                        |          | However, coal mining in Gloucestershire is unlikely to expand to scales larger than the existing small scale, freemining operations that currently exist <sup>67</sup> . Also, the proposed policy is likely to have no effect on this SA objective, as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to proposals being self-served by the operators behind them. Therefore, the proposed policy is likely to have no effect on this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | 0        | Coal mining provides low but nevertheless important contributions to local employment, and employment opportunities are benefits that are considered favourably when determining planning applications for mining. However, coal mining in Gloucestershire is unlikely to expand to scales larger than the existing small scale, freemining operations that currently exist. Therefore, the proposed policy is likely to have a negligible effect on this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | 0        | This proposed policy is unlikely to affect this SA Objective, as small scale underground mines are likely to be located outside of aerodrome safeguarding areas.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | This proposed policy is unlikely to affect this SA Objective, as small scale underground mines under this policy will not be classed as inappropriate development, as they are contributing to the extraction of mineral resources, not limiting the ability to extract resources.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | +/-?     | The proposed policy could lead to negative effects for biodiversity, as even though proposals for small scale underground mines will be small scale and have low environmental impacts due to the nature of operations, they could have potential impacts on designated sites, protected species or habitats. However, the policy will only permit operations that are environmentally acceptable in accordance with the other policies of the plan. Also, old colliery spoil tips can make a positive contribution to ecology and the overall environmental footprint of freemining sites is low <sup>68</sup> , and sites could also lead to positive effects, as sites may have the potential to achieve net gains for biodiversity during working or restoration via biodiversity enhancement opportunities that may exist. Therefore, this proposed policy is likely to have mixed, minor positive and minor negative effects on this SA objective. Although, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the |

<sup>67</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>68</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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|                                                                                                                                                                                                                    |          | <p>sites, which would not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on biodiversity, such as the Proposed Policy for Biodiversity and Geodiversity. Proposed Policies such as these will be used alongside the Proposed Policy for Small Scale Coal Underground Mines when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | +/-?     | <p>The proposed policy could potentially lead to negative effects for landscape and landscape character, as the largest area of coal resource within Gloucestershire is located within the Forest of Dean. However, the policy could also lead to positive effects, as old colliery spoil tips can have positive contributions to improving landscape, and sites are often located in concealed locations in forested areas<sup>69</sup>. Also, the policy will only permit operations that are environmentally acceptable in accordance with the other policies of the plan. Therefore, this proposed policy is likely to have mixed, minor positive and minor negative effects on this SA objective. Although, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on landscape, such as the Proposed Landscape Policy. Proposed Policies such as these will be used alongside the Proposed Policy for Small Scale Coal Underground Mines when determining proposals.</p>                                                                                                         |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +?       | <p>In most cases proposals for the extraction of minerals, including small scale underground coal mines, will have the potential to be restored to a high standard, achieving maximum after use benefits and enhancing the landscape. For example, historically spoil tips in Gloucestershire have been levelled and planted with trees with the result that the dereliction and disturbance caused to the land surface by coal mining has reduced as the land has become assimilated into the environment<sup>70</sup>. Additionally, some sites/buildings are now being used for non mineral purposes such as industrial estates<sup>71</sup>. Also, the proposed policy will only permit operations that are environmentally acceptable in accordance with the other policies of the plan. Therefore, the proposed policy is likely to have minor positive effects on this SA objective. Although, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until the planning application stage.</p> <p>There are also policies that will support the restoration of mineral sites to a high standard, such as the Proposed Restoration Policy. Proposed Policies such as these will</p> |

<sup>69</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>70</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>71</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

| SA Objective and Sub Questions                                                                    | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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|                                                                                                   |          | be used alongside the Proposed Policy for Small Scale Coal Underground Mines when determining proposals.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets. | +        | <p>This proposed policy is likely to have minor positive effects on this objective, as subject to criteria in the policy, it supports potential small scale coal underground mine operations that in the Forest of Dean would help maintain the heritage and culture of the area. Although, the policy may permit sites which could have potential effects on the access to and the enjoyment of recreational facilities (e.g. Public Rights of Way), however these would be uncertain as they would not be known until the planning application stage, and where there is the potential for effects upon recreation they will be temporary. However, the proposed policy will only permit operations that are environmentally acceptable in accordance with the other policies of the plan. Therefore, this policy is likely to have minor positive, uncertain effects on this SA objective.</p> <p>There are also policies that will mitigate the effects on Gloucestershire's material, cultural and recreational assets, such as the Proposed Policy for Public Rights of Way. Proposed Policies such as these will be used alongside the Proposed Policy for Small Scale Coal Underground Mines when determining proposals.</p> |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                              | +/-      | <p>The use of this policy may lead to minor negative effects as the extraction of coal may uncover and harm geological interests. However, these sites can also potentially contribute to geodiversity by preserving and conserving geological features, which is more likely to occur at less intensive mineral sites such as underground coal mines. Also, the proposed policy will only permit operations that are environmentally acceptable in accordance with the other policies of the plan. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design, and location of the sites, which would not be known until the planning application stage. Therefore, the proposed policy is likely to have uncertain, mixed minor positive and minor negative effects on this SA objective.</p> <p>There are also policies that will mitigate effects on geodiversity, thereby protecting and enhancing geodiversity in Gloucestershire, such as the Proposed Policy for Biodiversity and Geodiversity. Proposed Policies such as these will be used alongside the Proposed Policy for Small Scale Coal Underground Mines when determining proposals.</p>                       |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.  | 0        | The proposed policy is unlikely to affect this SA Objective, as coal sites are less intensive than other minerals worked in Gloucestershire. Also, on a county scale the industry is very small when compared to other minerals currently worked <sup>72</sup> . Also, the proposed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

<sup>72</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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|                                                                                                                                          |          | <p>policy will only permit operations that are environmentally acceptable in accordance with the other policies of the plan. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design, and location of the sites, which would not be known until the planning application stage.</p> <p>There are policies that aim to protect and mitigate effects on the Historic Environment, such as the Proposed Policy for the Historic Environment. Proposed Policies such as these will be used alongside the Proposed Policy for Small Scale Coal Underground Mines when determining proposals</p>                                                                                                                                                                                                                                                                                                                                      |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                           | 0?       | <p>The proposed policy is not expected to have an effect on flood risk areas, as minerals working and processing (except sand &amp; gravel working) are classed as less vulnerable, which means they are potentially compatible with all flood zones except for Flood Zone 3b, which sites for underground coal mines are unlikely to be located in. Also, the proposed policy will only permit operations that are environmentally acceptable in accordance with the other policies of the plan. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design, and location of the sites, which would not be known until the planning application stage.</p> <p>There are policies that will mitigate any effects regarding flooding, such as the Proposed Policy for Flood Risk. Proposed Policies such as these will be used alongside the Proposed Policy for Small Scale Coal Underground Mines when determining proposals.</p> |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                       | -?       | <p>This policy is likely to permit small to medium scale (i.e. less than 20ha) underground coal mines. However, the exact land take and location according to agricultural land quality (i.e. Grades 1 – 5), and whether improvements to soil quality through site restoration are possible; will not be known until the planning application stage, therefore effects on this SA Objective are likely to be minor negative uncertain.</p> <p>There are policies that aim to protect and enhance soil quality, such as the Proposed Policy for Soils. Proposed Policies such as these will be used alongside the Proposed Policy for Small Scale Coal Underground Mines when determining proposals.</p>                                                                                                                                                                                                                                                                                 |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality. | 0?       | <p>This proposed policy is likely to have negligible effects on this SA objective as small scale underground coal mines have low outputs thereby generating minimal traffic, which in turn will have a negligible impact on air quality. Also, the proposed policy will only permit operations that are environmentally acceptable in accordance with the other policies of the plan. However, the exact location of proposals and levels of emissions will not be known until the planning application stage, therefore these effects are uncertain. There are policies that aim to mitigate air quality impacts, such as the Proposed Policy</p>                                                                                                                                                                                                                                                                                                                                      |

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                        | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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|                                                                                                                                                                                                                                                                                                       |          | for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Proposed Policy for Small Scale Coal Underground Mines when determining proposals.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                            | ?        | <p>While this proposed policy may affect the water quality and quantity in Gloucestershire, at this stage in the planning process it is not possible to determine the impacts of policies such as this on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the underground coal mine proposal (location, design, method of working etc.), which would be assessed at the planning application stage.</p> <p>There are, however, policies that aim to mitigate impacts on water quality, such as the Proposed Policy for Water Quality. Proposed Policies such as these will be used alongside the Proposed Policy for Small Scale Coal Underground Mines when determining proposals.</p>                                                                                                                                                                                                                     |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels | +?       | <p>This proposed policy is likely to have minor positive effects on this SA objective. As the levels of lorry traffic associated with small scale underground coal mines is less than other mineral workings due to the lower outputs. Also, the proposed policy will only permit operations that are environmentally acceptable in accordance with the other policies of the plan. Although, the exact location of proposals, traffic levels, lorry routing and access arrangements will not be known until the planning application stage, therefore these effects are uncertain.</p> <p>There are policies that aim to mitigate traffic impacts and support sustainable transport, such as the Proposed Policy for Sustainable Transport. Proposed Policies such as these will be used alongside the Proposed Policy for Small Scale Coal Underground Mines when determining proposals.</p>                                                                |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                        | -?       | <p>While the scale of coal mining in Gloucestershire is small, the proposed policy will have minor negative effects on climate change, as the working and use of coal produces greenhouse gas emission which contributes towards climate change. Therefore, this policy will have minor negative effects on this SA objective.</p> <p>However, when determining proposals for the small scale underground coal mines, the Vision and Strategic Priorities will also be used to help determine proposals, which support reducing climate change impacts via mineral workings and their associated activities. Furthermore, policies such as the Proposed Policy for Sustainable Transport, the Proposed Policy for Biodiversity and Geodiversity, and the Proposed Policy for Mitigation of Environmental Effects all support the Vision and Strategic Priorities in reducing climate change impacts, which will be considered when determining proposals.</p> |



### Proposed Policy for Opencast Coal

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | 0?       | <p>The coal industry in Gloucestershire is small scale, comprising freemining operations, which are intermittently operated and are localised in the Forest of Dean<sup>73</sup>. Although, opencast coal mining has its own set of operating issues and environmental disadvantages as it often receives objections relating to dust<sup>74</sup>. However, operations typically have low environmental impacts on communities and their health and wellbeing. Also, the proposed policy will only permit proposals for the extraction of coal by opencast methods where they are environmentally acceptable and where there would be no adverse impacts on settlements and public amenity. Overall the effects on the health and wellbeing of people living and working in Gloucestershire are likely to be negligible. Therefore, this proposed policy is likely to have negligible effects on this SA objective. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on communities, and on the health and wellbeing of people living and working in Gloucestershire, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Proposed Policy for Opencast Coal when determining proposals.</p> |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | 0?       | <p>The coal industry in Gloucestershire is small scale, comprising freemining operations, which are intermittently operated and are localised in the Forest of Dean<sup>75</sup>. Although, opencast coal mining has its own set of operating issues and environmental disadvantages as it often receives objections relating to noise, dust and traffic<sup>76</sup>. However, operations typically have low environmental impacts on the local amenity of communities. Also, the proposed policy will only permit proposals for the extraction of coal by opencast methods where they are environmentally acceptable and where there would be no adverse impacts on settlements and public amenity. Overall the effects on the amenity of local communities in Gloucestershire are likely to be negligible. Therefore, this proposed policy is likely to have negligible effects on this SA objective. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on the amenity of local communities,</p>                                                                                                                                                                                                                                                                       |

<sup>73</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>74</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>75</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>76</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.



| SA Objective and Sub Questions                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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|                                                                                                                                                                        |          | such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Proposed Policy for Opencast Coal when determining proposals.                                                                                                                                                                                                                                                                                                                                                                                                        |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                               | 0        | Coal mining provides low but nevertheless important contributions to the local economy. However, coal mining in Gloucestershire is unlikely to expand to scales larger than the existing small scale, freemining operations that currently exist <sup>77</sup> . Also, the proposed policy is likely to have no effect on this SA objective, as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to proposals being self-served by the operators behind them. Therefore, the proposed policy is likely to have no effect on this SA objective. |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | 0        | Coal mining provides low but nevertheless important contributions to local employment, and employment opportunities are benefits that are considered favourably when determining planning applications for mining <sup>78</sup> . However, coal mining in Gloucestershire is unlikely to expand to scales larger than the existing small scale, freemining operations that currently exist <sup>79</sup> . Therefore, the proposed policy is likely to have a negligible effect on this SA objective.                                                                                                |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | 0        | This proposed policy is unlikely to affect this SA Objective, as opencast coal mines are likely to be located outside of aerodrome safeguarding areas.                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | This proposed policy is unlikely to affect this SA Objective, as opencast coal mines under this policy will not be classed as inappropriate development, as they are contributing to the extraction of mineral resources, not limiting the ability to extract resources.                                                                                                                                                                                                                                                                                                                             |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | +/-?     | The proposed policy could lead to negative effects for biodiversity, as even though proposals for opencast coal mines will be small scale and have low environmental impacts due to the nature of operations, they could have potential impacts on designated sites, protected species or habitats. However, the policy will only permit operations that are environmentally acceptable. Also, old colliery spoil tips can make a                                                                                                                                                                    |

<sup>77</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>78</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>79</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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|                                                                                                                                                                                                                    |          | <p>positive contribution to ecology and the overall environmental footprint of freemining sites is low, and sites could also lead to positive effects<sup>80</sup>, as sites may have the potential to achieve net gains for biodiversity during working or restoration via biodiversity enhancement opportunities that may exist. Therefore, this proposed policy is likely to have mixed, minor positive and minor negative effects on this SA objective. Although, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on biodiversity, such as the Proposed Policy for Biodiversity and Geodiversity. Proposed Policies such as these will be used alongside the Proposed Policy for Opencast Coal when determining proposals.</p>                                                                                                                                                                                                                                                                                                                 |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | +/-?     | <p>The proposed policy could potentially lead to negative effects for landscape and landscape character, as the largest area of coal resource within Gloucestershire is located within the Forest of Dean. However, the policy could also lead to positive effects, as old colliery spoil tips can have positive contributions to improving landscape, and sites are often located in concealed locations in forested areas<sup>81</sup>. Also, the policy will only permit operations that are environmentally acceptable, and are able to demonstrate that there would be no adverse impacts on public access, sensitive land uses, settlements and tourism and recreation. Therefore, this proposed policy is likely to have mixed, minor positive and minor negative effects on this SA objective. Although, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on landscape, such as the Proposed Landscape Policy. Proposed Policies such as these will be used alongside the Proposed Policy for Opencast Coal when determining proposals.</p> |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | <p>In most cases proposals for the extraction of minerals, including opencast coal mines, will have the potential to be restored to a high standard, achieving maximum after use benefits and enhancing the landscape. For example, historically spoil tips in Gloucestershire have been levelled and planted with trees with the result that the dereliction and disturbance caused to the land surface by coal mining has reduced as the land has become assimilated into the environment<sup>82</sup>. Additionally, some sites/buildings</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

<sup>80</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>81</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>82</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions                                                                    | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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|                                                                                                   |          | <p>are now being used for non mineral purposes such as industrial estates<sup>83</sup>. Also, the proposed policy will only permit proposals for the extraction of coal by opencast methods where they are environmentally acceptable and where there would be no adverse impacts on public access, sensitive land uses, and tourism and recreation. Therefore, the proposed policy is likely to have minor positive effects on this SA objective. Although, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until the planning application stage.</p> <p>There are also policies that will support the restoration of mineral sites to a high standard, such as the Proposed Restoration Policy. Proposed Policies such as these will be used alongside the Proposed Policy for Opencast Coal when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                                                                   |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets. | +        | <p>This proposed policy is likely to have minor positive effects on this objective, as subject to criteria in the policy, it supports the potential extraction of coal by opencast methods that in the Forest of Dean would help maintain the heritage and culture of the area. Although, the policy may permit sites which could have potential effects on the access to and the enjoyment of recreational facilities (e.g. Public Rights of Way), however these would be uncertain as they would not be known until the planning application stage, and where there is the potential for effects upon recreation they will be temporary. However, the proposed policy will only permit operations for the extraction of coal by opencast methods where they are environmentally acceptable and where there would be no adverse impacts on public access, sensitive land uses, and tourism and recreation. Therefore, this policy is likely to have minor positive, uncertain effects on this SA objective.</p> <p>There are also policies that will mitigate the effects on Gloucestershire's material, cultural and recreational assets, such as the Proposed Policy for Public Rights of Way. Proposed Policies such as these will be used alongside the Proposed Policy for Opencast Coal when determining proposals.</p> |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                              | +/-      | <p>The use of this policy may lead to minor negative effects as the extraction of coal may uncover and harm geological interests. However, these sites can also potentially contribute to geodiversity by preserving and conserving geological features, which is more likely to occur at less intensive mineral sites such as opencast coal mines. Also, the proposed policy will only permit proposals for the extraction of coal by opencast methods where they are environmentally acceptable and where there would be no adverse impacts on sensitive land uses. However, the effects would be uncertain as the</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

<sup>83</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions                                                                   | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                                                                                                  |          | <p>potential for effects will depend on the exact nature and design, and location of the sites, which would not be known until the planning application stage. Therefore, the proposed policy is likely to have uncertain, mixed minor positive and minor negative effects on this SA objective.</p> <p>There are also policies that will mitigate effects on geodiversity, thereby protecting and enhancing geodiversity in Gloucestershire, such as the Proposed Policy for Biodiversity and Geodiversity. Proposed Policies such as these will be used alongside the Proposed Policy for Opencast Coal when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                  |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting. | 0?       | <p>The proposed policy is unlikely to affect this SA Objective, as coal sites are less intensive than other minerals worked in Gloucestershire. On a county scale the industry is very small when compared to other minerals currently worked. Also, the proposed policy will only permit operations that are environmentally acceptable in accordance with the other policies of the plan and where they would not adversely impact on sensitive land uses, and tourism and recreation. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design, and location of the sites, which would not be known until the planning application stage.</p> <p>There are policies that aim to protect and mitigate effects on the Historic Environment, such as the Proposed Policy for the Historic Environment. Proposed Policies such as these will be used alongside the Proposed Policy for Opencast Coal when determining proposals.</p> |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.   | 0?       | <p>The proposed policy is not expected to have an effect on flood risk areas, as minerals working and processing (except sand &amp; gravel working) are classed as less vulnerable, which means they are potentially compatible with all flood zones except for Flood Zone 3b, which sites for opencast coal mines are unlikely to be located in. Also, the proposed policy will only permit operations that are environmentally acceptable in accordance with the other policies of the plan. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design, and location of the sites, which would not be known until the planning application stage.</p> <p>There are policies that will mitigate any effects regarding flooding, such as the Proposed Policy for Flood Risk. Proposed Policies such as these will be used alongside the Proposed Policy for Opencast Coal when determining proposals.</p>                            |
| 14. To protect and enhance soil / land quality in Gloucestershire.                               | -?       | <p>This policy is likely to permit small to medium scale (i.e. less than 20ha) opencast coal mines. However, the exact land take and location according to agricultural land quality</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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|                                                                                                                                                                                                                                                                                                                        |          | <p>(i.e. Grades 1 – 5), and whether improvements to soil quality through site restoration are possible; will not be known until the planning application stage, therefore effects on this SA Objective are likely to be minor negative uncertain.</p> <p>There are policies that aim to protect and enhance soil quality, such as the Proposed Policy for Soils. Proposed Policies such as these will be used alongside the Proposed Policy for Opencast Coal when determining proposals</p>                                                                                                                                                                                                                                                                                                                                                                                                |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                                                                                               | 0?       | <p>This proposed policy is likely to have negligible effects on this SA objective as opencast coal mines have low outputs thereby generating minimal traffic, which in turn will have a negligible impact on air quality. Also, the proposed policy will only permit operations that are environmentally acceptable in accordance with the other policies of the plan and where they would not adversely impact on sensitive land uses and settlement. However, the exact location of proposals and levels of emissions will not be known until the planning application stage, therefore these effects are uncertain.</p> <p>There are policies that aim to mitigate air quality impacts, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Proposed Policy for Opencast Coal when determining proposals</p> |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                                             | ?        | <p>While this proposed policy may affect the water quality and quantity in Gloucestershire, at this stage in the planning process it is not possible to determine the impacts of policies such as this on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the opencast coal mine proposal (location, design, method of working etc.), which would be assessed at the planning application stage.</p> <p>There are, however, policies that aim to mitigate impacts on water quality, such as the Proposed Policy for Water Quality. Proposed Policies such as these will be used alongside the Proposed Policy for Opencast Coal when determining proposals.</p>                                                                                                                                                                           |
| <p>17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:</p> <p>a) reducing the need to travel</p> <p>b) promoting more sustainable means of transport e.g. by rail or water</p> <p>c) sensitive lorry routing</p> <p>d) the use of sustainable alternative</p> | +?       | <p>This proposed policy is likely to have minor positive effects on this SA objective. As the levels of lorry traffic associated with opencast coal mines is less than other mineral workings due to the lower outputs. Also, the proposed policy will only permit operations that are environmentally acceptable in accordance with the other policies of the plan and where they would not adversely impact on sensitive land uses, public amenity, settlement, and tourism and recreation. Although, the exact location of proposals, traffic levels, lorry routing and access arrangements will not be known until the planning application stage, therefore these effects are uncertain.</p> <p>There are policies that aim to mitigate traffic impacts and support sustainable transport,</p>                                                                                         |

| SA Objective and Sub Questions                                 | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| fuels                                                          |          | such as the Proposed Policy for Sustainable Transport. Proposed Policies such as these will be used alongside the Proposed Policy for Opencast Coal when determining proposals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 18. To reduce contributions to and to adapt to Climate Change. | -?       | <p>While the scale of coal mining in Gloucestershire is small, the proposed policy will have minor negative effects on climate change, as the working and use of coal produces greenhouse gas emission which contributes towards climate change. Therefore, this policy will have minor negative effects on this SA objective.</p> <p>However, when determining proposals for opencast coal mines, the Vision and Strategic Priorities will also be used to help determine proposals, which support reducing climate change impacts via mineral workings and their associated activities. Furthermore, policies such as the Proposed Policy for Sustainable Transport, the Proposed Policy for Biodiversity and Geodiversity, and the Proposed Policy for Mitigation of Environmental Effects all support the Vision and Strategic Priorities in reducing climate change impacts, which will be considered when determining proposals.</p> |

### Proposed Policy for Re-working of Colliery Spoil Tips

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | 0?       | <p>The coal industry in Gloucestershire is small scale, comprising freemining operations, which are intermittently operated and are localised in the Forest of Dean. Currently all colliery spoil tips are also located in the Forest of Dean<sup>84</sup>. Operations typically have low environmental impacts in terms of dust on communities and their health and wellbeing<sup>85</sup>. The proposed policy will only permit proposals for re-working of colliery spoil tips if they are environmentally acceptable and accord with other policies in the local plan. Overall the effects on the health and wellbeing of people living and working in Gloucestershire are likely to be negligible. Therefore, this proposed policy is likely to have negligible effects on this SA objective. However, the effects would be uncertain as the potential for effects will depend on the exact nature, size and location of the tips, which would not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on communities, and on the health and wellbeing of people living and working in Gloucestershire, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Proposed Policy for Re-working of Colliery Spoil Tips when determining proposals.</p> |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | 0?       | <p>The coal industry in Gloucestershire is small scale, comprising freemining operations, which are intermittently operated and are localised in the Forest of Dean. Currently all colliery spoil tips are also located in the Forest of Dean<sup>86</sup>. Operations typically have low environmental impacts in terms of noise, dust and traffic on the amenity of local communities<sup>87</sup>. The proposed policy will only permit proposals for re-working of colliery spoil tips if they are environmentally acceptable and accord with other policies in the local plan. Overall the effects on the amenity of local communities in Gloucestershire are likely to be negligible. Therefore, this proposed policy is likely to have negligible effects on this SA objective. However, the effects would be uncertain as the potential for effects will depend on the exact nature, size and location of the tips, which would not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on the amenity of local communities, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Proposed Policy for Re-working of Colliery Spoil</p>                                                                                                          |

<sup>84</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>85</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>86</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>87</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

| SA Objective and Sub Questions                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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|                                                                                                                                                                        |          | Tips when determining proposals.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                               | 0        | Coal mining provides low but nevertheless important contributions to the local economy. However, coal mining and the re-working of colliery spoil tips in Gloucestershire is unlikely to expand to scales larger than the existing small scale operations that currently exist <sup>88</sup> . Also, the proposed policy is likely to have no effect on this SA objective, as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to proposals being self-served by the operators behind them. Therefore, the proposed policy is likely to have no effect on this SA objective.   |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | 0        | Coal mining provides low but nevertheless important contributions to local employment, and employment opportunities are benefits that are considered favourably when determining planning applications for mining <sup>89</sup> . However, coal mining and the re-working of colliery spoil tips in Gloucestershire is unlikely to expand to scales larger than the existing small scale operations that currently exist <sup>90</sup> . Therefore, the proposed policy is likely to have a negligible effect on this SA objective.                                                                                                  |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | 0        | This proposed policy is unlikely to affect this SA Objective, as proposals for the re-working of colliery spoil tips are likely to be located outside of aerodrome safeguarding areas.                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | This proposed policy is unlikely to affect this SA Objective, as proposals for the re-working of colliery spoil tips under this policy will not be classed as inappropriate development, as they are contributing to the extraction of mineral resources, not limiting the ability to extract resources.                                                                                                                                                                                                                                                                                                                             |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | +/-?     | The proposed policy could lead to negative effects for biodiversity, as even though proposals for the re-working of colliery spoil tips will be small scale and in isolated locations, proposals could have potential impacts on designated sites, protected species or habitats. However, the policy will only permit proposals for re-working of colliery spoil tips if they are environmentally acceptable and accord with other policies in the local plan, and that post extraction they provide an improvement to wildlife interest. Also, old colliery spoil tips can make a positive contribution to ecology and sites could |

<sup>88</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>89</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>90</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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|                                                                                                                                                                                                                    |          | <p>also lead to positive effects, as sites may have the potential to achieve net gains for biodiversity during working or restoration via biodiversity enhancement opportunities that may exist. Therefore, this proposed policy is likely to have mixed, minor positive and minor negative effects on this SA objective. Although, the effects would be uncertain as the potential for effects will depend on the exact nature, size and location of the tips, which would not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on biodiversity, such as the Proposed Policy for Biodiversity and Geodiversity. Proposed Policies such as these will be used alongside the Proposed Policy for Re-working of Colliery Spoil Tips when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | +/-?     | <p>The proposed policy could potentially lead to negative effects for landscape and landscape character, especially as all colliery spoil tips are currently located in the Forest of Dean. However, the policy could also lead to positive effects, as old colliery spoil tips can have positive contributions to improving landscape, and sites are often located in concealed locations in forested areas<sup>91</sup>. Also, the policy will only permit proposals for re-working of colliery spoil tips if they are environmentally acceptable and accord with other policies in the local plan, and that post extraction they provide an improvement the landscape quality. Therefore, this proposed policy is likely to have mixed, minor positive and minor negative effects on this SA objective. Although, the effects would be uncertain as the potential for effects will depend on the exact nature, size and location of the tips, which would not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on landscape, such as the Proposed Landscape Policy. Proposed Policies such as these will be used alongside the Proposed Policy for Re-working of Colliery Spoil Tips when determining proposals.</p> |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | <p>In most cases proposals for the extraction and/or working of minerals, including re-working of colliery spoil tips, will have the potential to be restored to a high standard, achieving maximum after use benefits and enhancing the landscape. For example, historically spoil tips in Gloucestershire have been levelled and planted with trees with the result that the dereliction and disturbance caused to the land surface by coal mining has reduced as the land has become assimilated into the environment<sup>92</sup>. Also, the proposed policy will not permit proposals unless they accord with other policies of the local plan and during extraction or following the completion of extraction as appropriate they provide an improvement to the landscape quality, wildlife interest and/or industrial heritage of the Forest of Dean. Therefore, the proposed policy is likely to have minor</p>                                                                                                                                                                                                                                                                                                                                                             |

<sup>91</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>92</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions                                                                    | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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|                                                                                                   |          | <p>positive effects on this SA objective. Although, the effects would be uncertain as the potential for effects will depend on the exact nature, size and location of the tips, which would not be known until the planning application stage.</p> <p>There are also policies that will support the restoration of mineral sites to a high standard, such as the Proposed Restoration Policy. Proposed Policies such as these will be used alongside the Proposed Policy for Re-working of Colliery Spoil Tips when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets. | +        | <p>This proposed policy is likely to have minor positive effects on this objective, as subject to criteria in the policy, it supports the potential re-working of colliery spoil tips to provide an improvement to the industrial heritage of the Forest of Dean, which would help conserve the heritage and culture of the area<sup>93</sup>. Although, the policy may permit operations which could have potential effects on the access to and the enjoyment of recreational facilities (e.g. Public Rights of Way), however these would be uncertain as they would not be known until the planning application stage, and where there is the potential for effects upon recreation they will be temporary. However, the proposed policy will only permit operations where they accord with other policies of the local plan. Therefore, this policy is likely to have minor positive, uncertain effects on this SA objective.</p> <p>There are also policies that will mitigate the effects on Gloucestershire's material, cultural and recreational assets, such as the Proposed Policy for Public Rights of Way. Proposed Policies such as these will be used alongside the Proposed Policy for Re-working of Colliery Spoil Tips when determining proposals.</p> |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                              | +/-?     | <p>The use of this policy may lead to minor negative effects as the re-working of colliery spoil tips may uncover and harm geological interests. However, these tips can also potentially contribute to geodiversity by preserving and conserving geological features, which is more likely to occur at less intensive mineral sites such as these. Also, the proposed policy will only permit proposals for re-working of colliery spoil tips if they are environmentally acceptable and accord with other policies in the local plan. However, the effects would be uncertain as the potential for effects will depend on the exact nature, size and location of the tips, which would not be known until the planning application stage. Therefore, the proposed policy is likely to have uncertain, mixed minor positive and minor negative effects on this SA objective.</p> <p>There are also policies that will mitigate effects on geodiversity, thereby protecting and</p>                                                                                                                                                                                                                                                                                     |

<sup>93</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions                                                                   | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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|                                                                                                  |          | enhancing geodiversity in Gloucestershire, such as the Proposed Policy for Biodiversity and Geodiversity. Proposed Policies such as these will be used alongside the Proposed Policy for Re-working of Colliery Spoil Tips when determining proposals.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting. | +        | <p>The proposed policy is likely to have a minor positive effect on this SA objective, as subject to criteria in the policy, it supports the potential re-working of colliery spoil tips to provide an improvement to the industrial heritage of the Forest of Dean, which would help conserve the heritage and culture of the area<sup>94</sup>. Also, re-working colliery spoil tips is less intensive than other minerals worked in Gloucestershire, and on a county scale the industry is very small when compared to other minerals currently worked. The proposed policy will also only permit proposals for re-working of colliery spoil tips if they are environmentally acceptable and accord with other policies in the local plan. However, the effects would be uncertain as the potential for effects will depend on the exact nature, size and location of the tips, which would not be known until the planning application stage.</p> <p>There are policies that aim to protect and mitigate effects on the Historic Environment, such as the Proposed Policy for the Historic Environment. Proposed Policies such as these will be used alongside the Proposed Policy for Re-working of Colliery Spoil Tips when determining proposals.</p> |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.   | 0?       | <p>The proposed policy is not expected to have an effect on flood risk areas, as minerals working and processing (except sand &amp; gravel working) are classed as less vulnerable, which means they are potentially compatible with all flood zones except for Flood Zone 3b, which sites for the re-working of colliery spoil tips are unlikely to be located in. Also, the proposed policy will only permit proposals for re-working of colliery spoil tips if they are environmentally acceptable and accord with other policies in the local plan. However, the effects would be uncertain as the potential for effects will depend on the exact nature, size and location of the tips, which would not be known until the planning application stage.</p> <p>There are policies that will mitigate any effects regarding flooding, such as the Proposed Policy for Flood Risk. Proposed Policies such as these will be used alongside the Proposed Policy for Re-working of Colliery Spoil Tips when determining proposals.</p>                                                                                                                                                                                                                        |

<sup>94</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions                                                                                                                                             | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                         | 0?       | <p>This policy is likely to permit small to medium scale (i.e. less than 20ha) proposals for the re-working of colliery spoil tips. However, as this involves the re-working of spoil tips that are already in-situ it is not going to involve any additional land take than what has already taken place during previous mining activity. It is also unlikely that this policy would lead to substantial improvements to soil quality. However, the effects would be uncertain as the potential for effects will depend on the exact nature, size and location of the tips, which would not be known until the planning application stage. Therefore, effects on this SA objective are likely to be negligible uncertain.</p> <p>There are also policies that aim to protect and enhance soil quality, such as the Proposed Policy for Soils. Proposed Policies such as these will be used alongside the Proposed Policy for Re-working of Colliery Spoil Tips when determining proposals.</p> |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                   | 0?       | <p>This proposed policy is likely to have negligible effects on this SA objective as the re-working of colliery spoil tips is like to involve small scale operations and low outputs thereby generating minimal traffic, which in turn will have a negligible impact on air quality. Also, the proposed policy will only permit proposals for re-working of colliery spoil tips if they are environmentally acceptable and accord with other policies in the local plan. The effects would be uncertain as the potential for effects will depend on the exact nature, size and location of the tips, which would not be known until the planning application stage.</p> <p>There are policies that aim to mitigate air quality impacts, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Proposed Policy for Re-working of Colliery Spoil Tips when determining proposals</p>                                    |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply. | ?        | <p>While this proposed policy may affect the water quality and quantity in Gloucestershire, at this stage in the planning process it is not possible to determine the impacts of policies such as this on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (location, design, method of working etc.), which would be assessed at the planning application stage.</p> <p>There are, however, policies that aim to mitigate impacts on water quality, such as the Proposed Policy for Water Quality. Proposed Policies such as these will be used alongside the Proposed Policy for Re-working of Colliery Spoil Tips when determining proposals.</p>                                                                                                                                                                                                                                                                              |
| 17. To reduce the adverse impacts of lorry traffic on the environment and                                                                                                  | +?       | <p>This proposed policy is likely to have minor positive effects on this SA objective. As the levels of lorry traffic associated with the re-working of colliery spoil tips is less than other</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                      | SA Score  | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| <p>communities through means such as:</p> <ul style="list-style-type: none"> <li>a) reducing the need to travel</li> <li>b) promoting more sustainable means of transport e.g. by rail or water</li> <li>c) sensitive lorry routing</li> <li>d) the use of sustainable alternative fuels</li> </ul> |           | <p>mineral workings due to the lower outputs. Also, the proposed policy will only permit proposals for re-working of colliery spoil tips if they are environmentally acceptable and accord with other policies in the local plan. Although, the exact location of proposals, traffic levels, lorry routing and access arrangements will not be known until the planning application stage, therefore these effects are uncertain.</p> <p>There are policies that aim to mitigate traffic impacts and support sustainable transport, such as the Proposed Policy for Sustainable Transport. Proposed Policies such as these will be used alongside the Proposed Policy for Re-working of Colliery Spoil Tips when determining proposals.</p>                                                                                                                                                                                                                      |
| <p>18. To reduce contributions to and to adapt to Climate Change.</p>                                                                                                                                                                                                                               | <p>-?</p> | <p>While the scale of coal mining in Gloucestershire is small, the proposed policy will have minor negative effects on climate change, as the re-working and use of coal produces greenhouse gas emissions which contributes towards climate change. Therefore, this policy will have minor negative effects on this SA objective.</p> <p>However, when determining proposals for the re-working of colliery spoil tips, the Vision and Strategic Priorities will also be used to help determine proposals, which support reducing climate change impacts via mineral workings and their associated activities. Furthermore, policies such as the Proposed Policy for Sustainable Transport, the Proposed Policy for Biodiversity and Geodiversity, and the Proposed Policy for Mitigation of Environmental Effects all support the Vision and Strategic Priorities in reducing climate change impacts, which will be considered when determining proposals.</p> |

### Proposed Policy for Conventional and Unconventional Hydrocarbons

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | -?       | <p>The conventional and unconventional oil and gas industry is not established in Gloucestershire and is unlikely to do so due to the limited geological potential in Gloucestershire, and the absence of any recent interest in exploration and limited geological information<sup>95</sup>. This is not to say that the proposed policy may be used to determine proposals, however, in this likelihood many of the potential impacts on communities and health and wellbeing (e.g. dust, pollution) are not that dissimilar to most mineral operations. Also, while operations are likely to be intensive, they are likely to be short term, especially during exploration<sup>96</sup>. The proposed policy will also only permit proposals whereby they do not adversely affect local communities and accord with all other relevant planning policies. Therefore, this proposed policy is likely to have minor negative effects on this SA objective. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until they were to come forward at the planning application stage.</p> <p>There are also policies that will mitigate the effects on communities, and on the health and wellbeing of people living and working in Gloucestershire, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Proposed Policy for Conventional and Unconventional Oil and Gas when determining proposals.</p> |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -?       | <p>The conventional and unconventional oil and gas industry is not established in Gloucestershire and is unlikely to do so due to the limited geological potential in Gloucestershire, and the absence of any recent interest in exploration and limited geological information<sup>97</sup>. This is not to say that the proposed policy may be used to determine proposals, however, in this likelihood many of the potential impacts on the amenity of local communities (e.g. transport, noise, lighting, dust, and pollution) are not that dissimilar to most mineral operations. Also, while operations are likely to be intensive, they are likely to be short term, especially during exploration<sup>98</sup>. The proposed policy will also only permit proposals whereby they do not adversely affect local communities and accord with all other relevant planning policies. Therefore, this proposed policy is likely to have minor negative effects on this SA objective. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until they were to come forward at the planning application stage.</p>                                                                                                                                                                                                                                                                                                                                                                |

<sup>95</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>96</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>97</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>98</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions                                                                                                                       | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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|                                                                                                                                                      |          | There are also policies that will mitigate the effects on the amenity of local communities in Gloucestershire, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Proposed Policy for Conventional and Unconventional Oil and Gas when determining proposals.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.             | +        | Oil and gas play an important role in the UK economy and further exploitation will help to ensure a secure and diverse supply chain. However, it is understood that the conventional and unconventional oil and gas industry is not established in Gloucestershire and is unlikely to do so due to the limited geological potential in Gloucestershire, and the absence of any recent interest in exploration and limited geological information <sup>99</sup> . However, there may be the potential for this industry to establish itself during the plan period. Therefore, this proposed policy may have minor positive effects on this SA objective. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until they were to come forward at the planning application stage.                                                                                   |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                        | +        | Oil and gas play an important role in the UK economy and further exploitation will help to ensure a secure and diverse supply chain, which could have positive effects for the provision of employment opportunities. However, it is understood that the conventional and unconventional oil and gas industry is not established in Gloucestershire and is unlikely to do so due to the limited geological potential in Gloucestershire, and the absence of any recent interest in exploration and limited geological information <sup>100</sup> . However, there may be the potential for this industry to establish itself during the plan period. Therefore, this proposed policy may have minor positive effects on this SA objective. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until they were to come forward at the planning application stage. |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                   | 0        | This proposed policy is unlikely to affect this SA Objective, as conventional and unconventional oil and gas sites are likely to be located outside of aerodrome safeguarding areas, and the restoration of these sites is unlikely to cause effects that would compromise the safety of commercial or military aerodromes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the | 0        | This proposed policy is unlikely to affect this SA Objective, as conventional and unconventional oil and gas sites permitted under this policy will not be classed as inappropriate development, as they are contributing to the extraction of mineral                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

<sup>99</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>100</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions                                        | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| needs of society.                                                     |          | resources, not limiting the ability to extract resources.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.  | +/-?     | <p>The proposed policy could lead to negative effects for biodiversity, as even though proposals are like to be short term for some stages of development (e.g. exploration), they are likely to be intensive and lead to potential impacts not too dissimilar to most mineral operations (e.g. transport, noise, lighting, dust, and pollution) which would negatively affect biodiversity. However, the proposed policy will only permit proposals whereby they do not adversely affect the environment and accord with all other relevant planning policies, and includes detailed plans and proposals for the restoration of the site. The sites could therefore lead to positive effects, as sites may have the potential to achieve net gains for biodiversity during working or restoration via biodiversity enhancement opportunities that may exist. Therefore, this proposed policy is likely to have mixed, minor positive and minor negative effects on this SA objective. Although,</p> <p>There are also policies that will mitigate the effects on biodiversity, such as the Proposed Policy for Biodiversity and Geodiversity. Proposed Policies such as these will be used alongside the Proposed Policy for Conventional and Unconventional Oil and Gas when determining proposals.</p>                                                                                                                                                                                       |
| 8. To protect, conserve and enhance the landscape in Gloucestershire. | +/-?     | <p>The proposed policy could potentially lead to negative effects for landscape and landscape character, as the policy, subject to criteria, could permit proposals for an industry which is not currently present in Gloucestershire, thereby having a greater effect on the landscape. However, the sites are relatively contained and small scale, and after exploration and appraisal; the presence of production wells (e.g. pumps known as 'nodding donkeys') are the only indication of a well's presence<sup>101</sup>. The policy could also lead to positive effects, as it may lead to the sympathetic restoration of sites which could have positive effects on landscape character, especially as the policy requires proposals to include detailed plans and proposals covering the restoration of sites. Also, the proposed policy will only permit proposals whereby they do not adversely affect the environment and accord with all other relevant planning policies. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until they were to come forward at the planning application stage.</p> <p>There are also policies that will mitigate the effects on landscape, such as the Proposed Landscape Policy. Proposed Policies such as these will be used alongside the Proposed Policy for Conventional and Unconventional Oil and Gas when determining proposals.</p> |

<sup>101</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | <p>In most cases proposals for the extraction of minerals, including unconventional and conventional oil and gas sites, will have the potential to be restored to a high standard, achieving maximum after use benefits and enhancing the landscape. The proposed policy will also only permit proposals whereby they do not adversely affect the environment and accord with all other relevant planning policies, and include detailed plans and proposals for the restoration of sites. Therefore the policy encourages the restoration of sites. Therefore, the proposed policy is likely to have minor positive effects on this SA objective. Although, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until they were to come forward at the planning application stage.</p> <p>There are also policies that will support the restoration of mineral sites to a high standard, such as the Proposed Restoration Policy. Proposed Policies such as these will be used alongside the Proposed Policy for Conventional and Unconventional Oil and Gas when determining proposals.</p>                             |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | 0        | <p>This proposed policy is unlikely to affect this SA Objective, as conventional and unconventional sites are unlikely to meaningfully protect, conserve or enhance Gloucestershire's material, cultural or recreational assets, particularly due to their small scale and short term nature. However, the policy could permit sites which could have potential effects on the access to and the enjoyment of recreational facilities (e.g. Public Rights of Way), however these would be uncertain as they would not be known until the planning application stage, and where there is the potential for effects upon recreation they will be temporary. Also, the proposed policy will only permit proposals which accord with all other relevant planning policies. Therefore, this policy is likely to have negligible, uncertain effects on this SA objective.</p> <p>There are also policies that will mitigate the effects on Gloucestershire's material, cultural and recreational assets, such as the Proposed Policy for Public Rights of Way. Proposed Policies such as these will be used alongside the Proposed Policy for Conventional and Unconventional Oil and Gas when determining proposals.</p> |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | -        | <p>The use of this policy may lead to minor negative effects as operations may uncover and harm geological interests and there is unlikely to be the potential to contribute to geodiversity by preserving and conserving geological features. Although, the likelihood of operations commencing in Gloucestershire is unlikely as the industry is not established in Gloucestershire and is unlikely to do so due to the limited geological potential in Gloucestershire, and the absence of any recent interest in exploration and limited geological information. Also, the proposed policy will only permit proposals</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

| SA Objective and Sub Questions                                                                   | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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|                                                                                                  |          | <p>whereby they do not adversely affect the environment and accord with all other relevant planning policies. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until they were to come forward at the planning application stage.</p> <p>There are also policies that will mitigate effects on geodiversity, thereby protecting and enhancing geodiversity in Gloucestershire, such as the Proposed Policy for Biodiversity and Geodiversity. Proposed Policies such as these will be used alongside the Proposed Policy for Conventional and Unconventional Oil and Gas when determining proposals.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting. | -?       | <p>The proposed policy may lead to minor negative effects on the historic environment (e.g. archaeology), heritage assets and their setting as operations can be intensive, due to the methods of working (i.e. drilling, water usage at high pressure, traffic volumes). Although, the likelihood of operations commencing in Gloucestershire is unlikely as the industry is not established in Gloucestershire and is unlikely to do so due to the limited geological potential in Gloucestershire, and the absence of any recent interest in exploration and limited geological information<sup>102</sup>. Also, the proposed policy will only permit proposals whereby they do not adversely affect the environment and accord with all other relevant planning policies. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until they were to come forward at the planning application stage.</p> <p>There are policies that aim to protect and mitigate effects on the Historic Environment, such as the Proposed Policy for the Historic Environment. Proposed Policies such as these will be used alongside the Proposed Policy for Conventional and Unconventional Oil and Gas when determining proposals.</p> |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.   | 0?       | <p>The proposed policy is not expected to have an effect on flood risk areas, as minerals working and processing (except sand &amp; gravel working) are classed as less vulnerable, which means they are potentially compatible with all flood zones except for Flood Zone 3b, which brick clay sites are unlikely to be located in. Also, the proposed policy will only permit proposals whereby they do not adversely affect the environment and accord with all other relevant planning policies. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until they were to come forward at the planning application stage.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

<sup>102</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions                                                                                                                                             | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                            |          | There are policies that will mitigate any effects regarding flooding, such as the Proposed Policy for Flood Risk. Proposed Policies such as these will be used alongside the Proposed Policy for Conventional and Unconventional Oil and Gas when determining proposals.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                         | -?       | <p>This policy is likely to permit small to medium scale (i.e. less than 20ha) sites. However, the exact land take and location according to agricultural land quality (i.e. Grades 1 – 5), and whether improvements to soil quality through site restoration are possible; will not be known until the planning application stage. Also, the proposed policy will only permit proposals whereby they do not adversely affect the environment and accord with all other relevant planning policies. Therefore effects on this SA Objective are likely to be minor negative uncertain.</p> <p>There are policies that aim to protect and enhance soil quality, such as the Proposed Policy for Soils. Proposed Policies such as these will be used alongside the Proposed Policy for Conventional and Unconventional Oil and Gas when determining proposals.</p>                                                            |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                   | -?       | <p>This proposed policy is likely to have minor negative effects on this SA objective as conventional and unconventional oil and gas sites can involve flaring of gas, and substantial amounts of transport movements due to the transport of water used in operations and the transportation of extracted oil and gas. This may lead to impacts on air quality. However, the proposed policy will only permit proposals whereby they do not adversely affect the environment and accord with all other relevant planning policies. Therefore, effects on this SA Objective are likely to be minor negative uncertain.</p> <p>There are policies that aim to mitigate air quality impacts, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Proposed Policy for Conventional and Unconventional Oil and Gas when determining proposals.</p> |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply. | ?        | <p>While this proposed policy may affect the water quality and quantity in Gloucestershire, at this stage in the planning process it is not possible to determine the impacts of policies such as this on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (location, design, method of working etc.), which would be assessed when proposals came forward at the planning application stage.</p> <p>There are, however, policies that aim to mitigate impacts on water quality, such as the Proposed Policy for Water Quality. Proposed Policies such as these will be used</p>                                                                                                                                                                                                                                                                             |

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                                                                                                | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                               |          | alongside the Proposed Policy for Conventional and Unconventional Oil and Gas when determining proposals.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <p>17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:</p> <ul style="list-style-type: none"> <li>a) reducing the need to travel</li> <li>b) promoting more sustainable means of transport e.g. by rail or water</li> <li>c) sensitive lorry routing</li> <li>d) the use of sustainable alternative fuels</li> </ul> | -?       | <p>This proposed policy is likely to have minor negative effects on this SA objective. As the levels of lorry traffic associated with sites can be substantial due to the transport of water used in operations and the transportation of extracted oil and gas. However, the proposed policy will only permit proposals whereby they do not adversely affect the environment and accord with all other relevant planning policies. Also, the exact location of proposals, traffic levels, lorry routing and access arrangements will not be known until the planning application stage, therefore these effects are uncertain.</p> <p>There are policies that aim to mitigate traffic impacts and support sustainable transport, such as the Proposed Policy for Sustainable Transport. Proposed Policies such as these will be used alongside the Proposed Policy for Conventional and Unconventional Oil and Gas when determining proposals.</p>                                                                                                                                                                                                                                                                                                                        |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                                                                                                | -        | <p>While the likelihood of unconventional and conventional oil and gas proposals coming forward in Gloucestershire is unlikely as the industry is not established in Gloucestershire and is unlikely to do so due to the limited geological potential in Gloucestershire, and the absence of any recent interest in exploration and limited geological information<sup>103</sup>. There is still a chance that it may happen. The operation of sites, especially during exploration can involve flaring and the loss of gas naturally through cracks in the bedrock. Therefore, this policy could have minor negative effects on this SA objective.</p> <p>However, when determining proposals for unconventional and conventional oil and gas proposals, the Vision and Strategic Priorities will also be used to help determine proposals, which support reducing climate change impacts via mineral workings and their associated activities. Furthermore, policies such as the Proposed Policy for Sustainable Transport, the Proposed Policy for Biodiversity and Geodiversity, and the Proposed Policy for Mitigation of Environmental Effects all support the Vision and Strategic Priorities in reducing climate change impacts, which will be considered when</p> |

<sup>103</sup> Gloucestershire County Council. Minerals Technical Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions | SA Score | Justification          |
|--------------------------------|----------|------------------------|
|                                |          | determining proposals. |

### Proposed Policy for Flood Risk

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | +        | Flooding can endanger lives, damage settlements and can also adversely affect the health of people <sup>104</sup> . This is evident in Gloucestershire as the major rivers in Gloucestershire frequently flood. Therefore, the proposed policy may have minor positive effects on this SA objective, as it supports the reduction in the likelihood and impact of flooding both on and off-site proposals, ensuring minerals developments are located within appropriate Flood Zones, and that all new development and restoration schemes take account of all sources of current and potential flood risk, in particular the use of Sustainable Drainage Systems (SUDS). |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | +        | Flooding can endanger lives, damage settlements and the amenity of communities <sup>105</sup> . This is evident in Gloucestershire as the major rivers in Gloucestershire frequently flood. Therefore, the proposed policy may have minor positive effects on this SA objective, as it supports the reduction in the likelihood and impact of flooding both on and off-site proposals, ensuring minerals developments are located within appropriate Flood Zones, and that all new development and restoration schemes take account of all sources of current and potential flood risk, in particular the use of Sustainable Drainage Systems (SUDS).                     |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                                                  | 0        | Reducing the likelihood and impact of flooding on and off-site is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                                             | 0        | Reducing the likelihood and impact of flooding on and off-site is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                                        | -?       | Sand and gravel workings can possibly assist in adding to flood storage capacity in the County where the restoration is water based. The Flood Risk Policy states that sand and gravel workings will be permitted within the highest risk flood zone providing that there is no: i. net loss of floodplain storage ii. impediment to water flows iii. increase in flood risk elsewhere. However, sites restored to a form of open water use within the                                                                                                                                                                                                                    |

<sup>104</sup> Gloucestershire County Council. Planning and Environmental Considerations Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>105</sup> Gloucestershire County Council. Planning and Environmental Considerations Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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|                                                                                                                                                                        |          | <p>Cotswolds Water Park, which is located within and in close proximity to the safeguarding zone for RAF Fairford, could affect the safety of commercial or military aerodromes due to the potential for birds to provide a hazard to aircraft. Therefore, the proposed policy could have a minor negative effect on this SA objective. However, effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.</p> <p>There are also policies that will mitigate the effects on the safety of aerodromes, such as the Proposed Policy for Safeguarding Aerodromes. Proposed Policies such as these will be used alongside the Proposed Policy for Flood Risk when determining proposals.</p> |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | Reducing the likelihood and impact of flooding on and off-site is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | +        | Flooding can adversely affect habitats <sup>106</sup> . This is evident in Gloucestershire as the major rivers in Gloucestershire frequently flood. Therefore, the proposed policy may have minor positive effects on this SA objective, as it supports the reduction in the likelihood and impact of flooding both on and off-site proposals, ensuring minerals developments are located within appropriate Flood Zones, and that all new development and restoration schemes take account of all sources of current and potential flood risk, in particular the use of Sustainable Drainage Systems (SUDS).                                                                                                                                                                                                                                                                      |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                  | +        | Flooding can damage buildings and settlements and also adversely affect the characteristics of landscapes <sup>107</sup> . This is evident in Gloucestershire as the major rivers in Gloucestershire frequently flood. Therefore, the proposed policy may have minor positive effects on this SA objective, as it supports the reduction in the likelihood and impact of flooding both on and off-site proposals, ensuring minerals developments are located within appropriate Flood Zones, and that all new development and restoration schemes take account of all sources of current and potential flood risk, in particular the use of Sustainable Drainage Systems (SUDS).                                                                                                                                                                                                   |

<sup>106</sup> Gloucestershire County Council. Planning and Environmental Considerations Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>107</sup> Gloucestershire County Council. Planning and Environmental Considerations Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | The proposed policy could have minor positive effects on this SA objective as sand and gravel workings can possibly assist in adding to flood capacity where the restoration is water based and does not lead to a net loss in flood plain storage <sup>108</sup> . Water based restoration may provide a range of benefits both to the conservation and enhancement of biodiversity, and/or for recreational purposes. However, effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | +        | Flooding can damage buildings, infrastructure and settlements, and also adversely affect heath and landscapes <sup>109</sup> . This is evident in Gloucestershire as the major rivers in Gloucestershire frequently flood. Therefore, the proposed policy may have minor positive effects on this SA objective, as it supports the reduction in the likelihood and impact of flooding both on and off-site proposals, ensuring minerals developments are located within appropriate Flood Zones, and that all new development and restoration schemes take account of all sources of current and potential flood risk, in particular the use of Sustainable Drainage Systems (SUDS). |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | 0        | Reducing the likelihood and impact of flooding on and off-site is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                   | +        | Flooding can damage buildings, historic structures and archaeology, and adversely affect the characteristics of landscapes <sup>110</sup> . This is evident in Gloucestershire as the major rivers in Gloucestershire frequently flood. Therefore, the proposed policy may have minor positive effects on this SA objective,                                                                                                                                                                                                                                                                                                                                                         |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                     | ++       | The proposed policy is likely to have significant positive effects on this SA objective as it supports the reduction in the likelihood and impact of flooding both on and off-site proposals, ensuring minerals developments are located within appropriate Flood Zones, and that all new development and restoration schemes take account of all sources of current and potential flood risk, in particular the use of Sustainable Drainage Systems (SUDS).                                                                                                                                                                                                                         |

<sup>108</sup> Gloucestershire County Council. Planning and Environmental Considerations Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>109</sup> Gloucestershire County Council. Planning and Environmental Considerations Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>110</sup> Gloucestershire County Council. Planning and Environmental Considerations Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions                                                                                                                                                                                                                                                                        | SA Score | Justification                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                                                                                                    | 0        | Reducing the likelihood and impact of flooding on and off-site is unlikely to affect this SA objective.                                                                                                                                                                                                            |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                                                                              | 0        | Reducing the likelihood and impact of flooding on and off-site is unlikely to affect this SA objective.                                                                                                                                                                                                            |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                            | 0        | Reducing the likelihood and impact of flooding on and off-site is unlikely to affect this SA objective.                                                                                                                                                                                                            |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels | 0        | Reducing the likelihood and impact of flooding on and off-site is unlikely to affect this SA objective.                                                                                                                                                                                                            |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                        | +        | As the climate changes flooding is an increasing threat in Gloucestershire and the issues are increasingly complex. Therefore, reducing the likelihood and impact of flooding on and off-site is likely to have a minor positive impact on this SA objective, as the policy supports adaptation to climate change. |

### Proposed Policy for Water Quality

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | +        | The proposed policy is likely have a positive effect on this SA objective, as the policy seeks to protect the water environment, ensuring any harmful effects are appropriately mitigated and that appropriate buffer zones are retained. This will help ensure the protection of major aquifers which sites can be constructed in or in close proximity to, thereby protecting public drinking water supplies, which will prevent any effects on the health and wellbeing of local communities and visitors to Gloucestershire. |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | 0        | Protecting water quality and mitigating any harmful effects is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                                                  | 0        | Protecting water quality and mitigating any harmful effects is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                                             | 0        | Protecting water quality and mitigating any harmful effects is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                                        | 0        | Protecting water quality and mitigating any harmful effects is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.                    | 0        | Protecting water quality and mitigating any harmful effects is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                                      | +        | The policy will have a minor positive effect on this SA objective as it will help prevent the deterioration in the status of aquatic ecosystems, protect them and improve the ecological condition of waters.                                                                                                                                                                                                                                                                                                                    |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                     | 0        | Protecting water quality and mitigating any harmful effects is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                             |

| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | The proposed policy could have minor positive effects on this SA objective as the policy aims to protect water quality and mitigate any potential harmful effects on it. This may therefore encourage proposals to restore mineral sites to a high standard and achieve benefits for the conservation and enhancement of biodiversity; for example, restoration proposals may help by preventing the deterioration in the status of aquatic ecosystems, protecting them and improving the ecological condition of waters. |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | 0        | Protecting water quality and mitigating any harmful effects is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | 0        | Protecting water quality and mitigating any harmful effects is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                   | 0        | Protecting water quality and mitigating any harmful effects is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                     | 0        | Protecting water quality and mitigating any harmful effects is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                 | 0        | Protecting water quality and mitigating any harmful effects is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                           | 0        | Protecting water quality and mitigating any harmful effects is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                         | ++       | The proposed policy is likely to have significant positive effects on this SA objective as it supports the protection of water quality, ensuring any harmful effects are appropriately mitigated and that appropriate buffer zones are retained. The policy will therefore ensure that minerals development does not compromise water quality, which will in turn support the protection of sources of water supply and significant watercourses.                                                                         |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means                              | 0        | Protecting water quality and mitigating any harmful effects is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                      |

| SA Objective and Sub Questions                                                                                  | SA Score | Justification                                                                                        |
|-----------------------------------------------------------------------------------------------------------------|----------|------------------------------------------------------------------------------------------------------|
| of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels |          |                                                                                                      |
| 18. To reduce contributions to and to adapt to Climate Change.                                                  | 0        | Protecting water quality and mitigating any harmful effects is unlikely to affect this SA objective. |

### Proposed Landscape Policy

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | +        | The proposed policy is likely have a minor positive effect on this SA objective, as the policy seeks to protect the landscape and its setting, and where significant adverse impacts cannot be fully mitigated the social benefits of the proposal must outweigh any harm arising from the impacts. The policy also seeks to enhance the landscape via restorations in the longer term. The policy may therefore help to improve the health and wellbeing of people living and working in Gloucestershire, as well as visitors to the County, as they will be able to continue to receive the benefits the landscape offers via its cultural and aesthetic benefits. |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | 0        | Preventing significant adverse effects on the local landscape and ensuring Areas of Outstanding Natural Beauty are prevented from adverse effects, and appropriately considered and enhanced via restoration in the longer term is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                             |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                                                  | 0        | Preventing significant adverse effects on the local landscape and ensuring Areas of Outstanding Natural Beauty are prevented from adverse effects, and appropriately considered and enhanced via restoration in the longer term is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                             |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                                             | 0        | Preventing significant adverse effects on the local landscape and ensuring Areas of Outstanding Natural Beauty are prevented from adverse effects, and appropriately considered and enhanced via restoration in the longer term is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                             |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                                        | 0        | Preventing significant adverse effects on the local landscape and ensuring Areas of Outstanding Natural Beauty are prevented from adverse effects, and appropriately considered and enhanced via restoration in the longer term is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                             |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.                    | 0        | Preventing significant adverse effects on the local landscape and ensuring Areas of Outstanding Natural Beauty are prevented from adverse effects, and appropriately considered and enhanced via restoration in the longer term is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                             |

| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                                                               | +        | Many of the important landscapes in the county such as the Areas of Outstanding Natural Beauty have a strong relationship with important habitats and biodiversity <sup>111</sup> . The protection of the landscape via the proposed policy will therefore have minor positive effects on this SA objective as it will also protect the biodiversity of the landscapes which contribute to their setting and special qualities.                                                                                                                                                                                                                                                                                                                                                                                            |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | ++       | A significant majority of Gloucestershire is designated as Areas of Outstanding Natural Beauty (AONBs), and minerals development does take place within them (e.g. Wye Valley and Cotswolds AONBs) <sup>112</sup> . Therefore, the impact of minerals working on the AONB is a significant factor to consider.<br><br>The proposed policy is likely to have significant positive effects on this SA objective, as it aims to protect the general landscape from significant adverse effects and where this is not possible the social, environmental and economic benefits must outweigh any harm. The policy also addresses AONBs, ensuring that they are protected and enhanced by minerals development, including their special qualities, both within their boundaries and by developments that affect their settings. |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | The proposed policy could have minor positive effects on this SA objective as minerals development within or affecting the setting of the AONBs will only be permitted where it can be demonstrated that landscapes can be restored and, where possible, enhances in the longer term. This may result in a high standard of restoration to ensure that restored sites are sympathetic to their surrounding landscape and provide benefits to it, thereby contributing to the special qualities of areas.                                                                                                                                                                                                                                                                                                                   |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | +        | The proposed policy is likely have a minor positive effect on this SA objective, as the policy seeks to protect the landscape and its setting, and where significant adverse impacts cannot be fully mitigated the social benefits of the proposal must outweigh any harm arising from the impacts. The policy also seeks to enhance the landscape via restoration in the longer term. The policy may therefore help to conserve and enhance Gloucestershire's material, cultural and recreational assets (e.g. Public Rights of Way)                                                                                                                                                                                                                                                                                      |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | 0        | Preventing significant adverse effects on the local landscape and ensuring Areas of Outstanding Natural Beauty are prevented from adverse effects, and appropriately considered and enhanced via restoration in the longer term is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 12. To protect conserve and enhance the historic environment, heritage                                                                                                                                             | 0        | Preventing significant adverse effects on the local landscape and ensuring Areas of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

<sup>111</sup> Gloucestershire County Council. Planning and Environmental Considerations Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>112</sup> Gloucestershire County Council. Planning and Environmental Considerations Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions                                                                                                                                                                                                                                                                        | SA Score | Justification                                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| assets and their setting.                                                                                                                                                                                                                                                                             |          | Outstanding Natural Beauty are prevented from adverse effects, and appropriately considered and enhanced via restoration in the longer term is unlikely to affect this SA objective.                                                                                     |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                                                                                                        | 0        | Preventing significant adverse effects on the local landscape and ensuring Areas of Outstanding Natural Beauty are prevented from adverse effects, and appropriately considered and enhanced via restoration in the longer term is unlikely to affect this SA objective. |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                                                                                                    | 0        | Preventing significant adverse effects on the local landscape and ensuring Areas of Outstanding Natural Beauty are prevented from adverse effects, and appropriately considered and enhanced via restoration in the longer term is unlikely to affect this SA objective. |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                                                                              | 0        | Preventing significant adverse effects on the local landscape and ensuring Areas of Outstanding Natural Beauty are prevented from adverse effects, and appropriately considered and enhanced via restoration in the longer term is unlikely to affect this SA objective. |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                            | 0        | Preventing significant adverse effects on the local landscape and ensuring Areas of Outstanding Natural Beauty are prevented from adverse effects, and appropriately considered and enhanced via restoration in the longer term is unlikely to affect this SA objective. |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels | 0        | Preventing significant adverse effects on the local landscape and ensuring Areas of Outstanding Natural Beauty are prevented from adverse effects, and appropriately considered and enhanced via restoration in the longer term is unlikely to affect this SA objective. |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                        | 0        | Preventing significant adverse effects on the local landscape and ensuring Areas of Outstanding Natural Beauty are prevented from adverse effects, and appropriately considered and enhanced via restoration in the longer term is unlikely to affect this SA objective. |

### Proposed Policy for Mineral Working in the Green Belt

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | 0        | Ensuring inappropriate development does not take place in the Gloucester-Cheltenham Green Belt, and its openness is preserved and that proposals can demonstrate that they can be carried out to the highest environmental standards is unlikely to affect this SA objective.                                                                                  |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | 0        | Ensuring inappropriate development does not take place in the Gloucester-Cheltenham Green Belt, and its openness is preserved and that proposals can demonstrate that they can be carried out to the highest environmental standards is unlikely to affect this SA objective.                                                                                  |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                                                  | 0        | Ensuring inappropriate development does not take place in the Gloucester-Cheltenham Green Belt, and its openness is preserved and that proposals can demonstrate that they can be carried out to the highest environmental standards is unlikely to affect this SA objective.                                                                                  |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                                             | 0        | Ensuring inappropriate development does not take place in the Gloucester-Cheltenham Green Belt, and its openness is preserved and that proposals can demonstrate that they can be carried out to the highest environmental standards is unlikely to affect this SA objective.                                                                                  |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                                        | 0        | Ensuring inappropriate development does not take place in the Gloucester-Cheltenham Green Belt, and its openness is preserved and that proposals can demonstrate that they can be carried out to the highest environmental standards is unlikely to affect this SA objective.                                                                                  |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.                    | 0        | Ensuring inappropriate development does not take place in the Gloucester-Cheltenham Green Belt, and its openness is preserved and that proposals can demonstrate that they can be carried out to the highest environmental standards is unlikely to affect this SA objective.                                                                                  |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                                      | +        | The proposed policy could have minor positive effects on this SA objective, as it requires proposals to demonstrate that they can be carried out to the highest environmental standards and that the site of any mineral working can be restored quickly to a beneficial after use. This will therefore protect, conserve and potentially enhance biodiversity |



| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                    |          | within the Green Belt.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | +        | The proposed policy could have minor positive effects on this SA objective, as it requires proposals to demonstrate that they can be carried out to the highest environmental standards and that the site of any mineral working can be restored quickly to a beneficial after use. Also, it aims to ensure that inappropriate development does not take place in the Green Belt, and that its openness is preserved, thereby seeking to protect and enhance the landscape designation.                 |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | The proposed policy requires that the site of any mineral working can be restored quickly to a beneficial after use within the Green Belt. This will therefore have minor positive effects on this SA objective, as it supports the restoration to beneficial after uses.                                                                                                                                                                                                                               |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | +        | The proposed policy could have minor positive effects on this SA objective, as it requires proposals to demonstrate that they can be carried out to the highest environmental standards and that the site of any mineral working can be restored quickly to a beneficial after use. Also, it aims to ensure that inappropriate development does not take place in the Green Belt, and that its openness is preserved, thereby seeking to protect and enhance the Gloucestershire's recreational assets. |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | 0        | Ensuring inappropriate development does not take place in the Gloucester-Cheltenham Green Belt, and its openness is preserved and that proposals can demonstrate that they can be carried out to the highest environmental standards is unlikely to affect this SA objective.                                                                                                                                                                                                                           |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                   | 0        | Ensuring inappropriate development does not take place in the Gloucester-Cheltenham Green Belt, and its openness is preserved and that proposals can demonstrate that they can be carried out to the highest environmental standards is unlikely to affect this SA objective.                                                                                                                                                                                                                           |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                     | 0        | Ensuring inappropriate development does not take place in the Gloucester-Cheltenham Green Belt, and its openness is preserved and that proposals can demonstrate that they can be carried out to the highest environmental standards is unlikely to affect this SA objective.                                                                                                                                                                                                                           |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                 | 0        | Ensuring inappropriate development does not take place in the Gloucester-Cheltenham Green Belt, and its openness is preserved and that proposals can demonstrate that they can be carried out to the highest environmental standards is unlikely to affect this SA                                                                                                                                                                                                                                      |

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                        | SA Score | Justification                                                                                                                                                                                                                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                       |          | objective.                                                                                                                                                                                                                                                                    |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                                                                              | 0        | Ensuring inappropriate development does not take place in the Gloucester-Cheltenham Green Belt, and its openness is preserved and that proposals can demonstrate that they can be carried out to the highest environmental standards is unlikely to affect this SA objective. |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                            | 0        | Ensuring inappropriate development does not take place in the Gloucester-Cheltenham Green Belt, and its openness is preserved and that proposals can demonstrate that they can be carried out to the highest environmental standards is unlikely to affect this SA objective. |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels | 0        | Ensuring inappropriate development does not take place in the Gloucester-Cheltenham Green Belt, and its openness is preserved and that proposals can demonstrate that they can be carried out to the highest environmental standards is unlikely to affect this SA objective. |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                        | 0        | Ensuring inappropriate development does not take place in the Gloucester-Cheltenham Green Belt, and its openness is preserved and that proposals can demonstrate that they can be carried out to the highest environmental standards is unlikely to affect this SA objective. |

### Proposed Policy for Biodiversity and Geodiversity

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | 0        | The overarching protection, conservation, and enhancement of biodiversity and geodiversity by proposals, and their potential positive and adverse impacts on designated sites and protected species is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | 0        | The overarching protection, conservation, and enhancement of biodiversity and geodiversity by proposals, and their potential positive and adverse impacts on designated sites and protected species is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                                                  | 0        | The overarching protection, conservation, and enhancement of biodiversity and geodiversity by proposals, and their potential positive and adverse impacts on designated sites and protected species is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                                             | 0        | The overarching protection, conservation, and enhancement of biodiversity and geodiversity by proposals, and their potential positive and adverse impacts on designated sites and protected species is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                                        | -?       | <p>Specific issues occur where minerals sites are near to an airport or aerodrome as bird strike is a possibility with aircraft. In Gloucestershire this is mainly an issue restricted to the Cotswold Water Park due to the proximity of some minerals sites and minerals resources to RAF Fairford<sup>113</sup>. Therefore, the proposed policy may have a minor negative effect on this SA objective, as proposals may suggest water based after uses for sites in the Cotswold Water Park which may include and/or attract birds that could become a hazard due to bird strike. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the sites, which would not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on the safety of aerodromes, such as the Proposed Policy for Safeguarding Aerodromes. Proposed Policies such as these will be used alongside the Proposed Policy when determining proposals.</p> |
| 6. To conserve minerals resources from inappropriate development whilst                                                                                                                   | 0        | The overarching protection, conservation, and enhancement of biodiversity and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

<sup>113</sup> Gloucestershire County Council. Planning and Environmental Considerations Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| providing for the supply of aggregates and other minerals sufficient for the needs of society.                                                                                                                     |          | geodiversity by proposals, and their potential positive and adverse impacts on designated sites and protected species is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                              |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                                                               | ++       | The policy is likely to have a significant positive effect on this SA objective as it requires all minerals development proposals to assess their impact on biodiversity, and states that developments should conserve and enhance the natural environment. The policy also outlines how designated sites and protected species should be considered, protected and enhanced by proposals.                                                                                                  |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | +        | Important habitats and biodiversity have a strong relationship with many of the important landscapes in the county such as the Areas of Outstanding Natural Beauty <sup>114</sup> . The conservation and enhancement of biodiversity via the proposed policy will therefore have minor positive effects on this SA objective, as it will also protect and contribute towards the important landscapes within Gloucestershire.                                                               |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | Minerals restoration can have a major role in enhancing the natural environment <sup>115</sup> . The proposed policy is likely to have a minor positive effect on this SA objective, as it requires developments to enhance the natural environment, and states that proposals that incorporate beneficial biodiversity or geological features into their design and layout will be favourably considered, thereby encouraging high standards of restoration to be included with proposals. |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | 0        | The overarching protection, conservation, and enhancement of biodiversity and geodiversity by proposals, and their potential positive and adverse impacts on designated sites and protected species is unlikely to affect this SA objective.                                                                                                                                                                                                                                                |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | ++       | The policy is likely to have a significant positive effect on this SA objective as it requires all minerals development proposals to assess their impact on geodiversity, and states that developments should conserve and enhance the natural environment. The policy also outlines how designated sites should be considered, protected and enhanced by proposals.                                                                                                                        |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                   | 0        | The overarching protection, conservation, and enhancement of biodiversity and geodiversity by proposals, and their potential positive and adverse impacts on designated sites and protected species is unlikely to affect this SA objective.                                                                                                                                                                                                                                                |

<sup>114</sup> Gloucestershire County Council. Planning and Environmental Considerations Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>115</sup> Gloucestershire County Council. Planning and Environmental Considerations Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
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| SA Objective and Sub Questions                                                                                                                                                                                                                                                                        | SA Score | Justification                                                                                                                                                                                                                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                                                                                                        | 0        | The overarching protection, conservation, and enhancement of biodiversity and geodiversity by proposals, and their potential positive and adverse impacts on designated sites and protected species is unlikely to affect this SA objective. |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                                                                                                    | 0        | The overarching protection, conservation, and enhancement of biodiversity and geodiversity by proposals, and their potential positive and adverse impacts on designated sites and protected species is unlikely to affect this SA objective. |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                                                                              | 0        | The overarching protection, conservation, and enhancement of biodiversity and geodiversity by proposals, and their potential positive and adverse impacts on designated sites and protected species is unlikely to affect this SA objective. |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                            | 0        | The overarching protection, conservation, and enhancement of biodiversity and geodiversity by proposals, and their potential positive and adverse impacts on designated sites and protected species is unlikely to affect this SA objective. |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels | 0        | The overarching protection, conservation, and enhancement of biodiversity and geodiversity by proposals, and their potential positive and adverse impacts on designated sites and protected species is unlikely to affect this SA objective. |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                        | 0        | The overarching protection, conservation, and enhancement of biodiversity and geodiversity by proposals, and their potential positive and adverse impacts on designated sites and protected species is unlikely to affect this SA objective. |

### Proposed Policy for the Historic Environment

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | 0        | The protection and conservation of the historic environment, including heritage assets and their integrity, character and setting, and of those non-designated heritage assets with archaeological interest is unlikely to affect this SA objective.                                                                                                               |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | 0        | The protection and conservation of the historic environment, including heritage assets and their integrity, character and setting, and of those non-designated heritage assets with archaeological interest is unlikely to affect this SA objective.                                                                                                               |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                                                  | 0        | The protection and conservation of the historic environment, including heritage assets and their integrity, character and setting, and of those non-designated heritage assets with archaeological interest is unlikely to affect this SA objective.                                                                                                               |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                                             | 0        | The protection and conservation of the historic environment, including heritage assets and their integrity, character and setting, and of those non-designated heritage assets with archaeological interest is unlikely to affect this SA objective.                                                                                                               |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                                        | 0        | The protection and conservation of the historic environment, including heritage assets and their integrity, character and setting, and of those non-designated heritage assets with archaeological interest is unlikely to affect this SA objective.                                                                                                               |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.                    | 0        | The protection and conservation of the historic environment, including heritage assets and their integrity, character and setting, and of those non-designated heritage assets with archaeological interest is unlikely to affect this SA objective.                                                                                                               |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                                      | 0        | The protection and conservation of the historic environment, including heritage assets and their integrity, character and setting, and of those non-designated heritage assets with archaeological interest is unlikely to affect this SA objective.                                                                                                               |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                     | ++       | The proposed policy is likely to have significant positive effects on this SA objective, as the policy aims to protect and conserve the historic environment, including the character and setting of heritage assets, which includes historic landscapes, and conservation areas and listed buildings which are located within these landscapes. This is important |

| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                    |          | as minerals development can have a serious impact on the historic environment, although this can vary depending on the nature of the minerals development and associated works, and the nature of the historic environment within which it is sited <sup>116</sup> . The policy also recognises the need for the mitigation of the impact of minerals development on the historic environment.                                                                                                                                                                                                                                                                                                                                                                                          |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | The proposed policy may have minor positive effects on this policy, as mineral sites may discover archaeological remains during working which could be conserved, using appropriate mitigation, and incorporated into the restoration of sites. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of proposals, which will not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                                             |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | 0        | The protection and conservation of the historic environment, including heritage assets and their integrity, character and setting, and of those non-designated heritage assets with archaeological interest is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | 0        | The protection and conservation of the historic environment, including heritage assets and their integrity, character and setting, and of those non-designated heritage assets with archaeological interest is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                   | ++       | The proposed policy is likely to have significant positive effects on this SA objective, as the policy aims to protect and conserve the historic environment, including heritage assets and their integrity, character and setting, and of those non-designated heritage assets with archaeological interest. This is important as minerals development can have a serious impact on archaeological sites or other elements of the historic environment, although this can vary depending on the nature of the minerals development and associated works, and the nature of the historic environment within which it is sited <sup>117</sup> . The policy also recognises the need for the mitigation of the impact of minerals development on archaeology and the historic environment |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                     | 0        | The protection and conservation of the historic environment, including heritage assets and their integrity, character and setting, and of those non-designated heritage assets with archaeological interest is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

<sup>116</sup> Gloucestershire County Council. Planning and Environmental Considerations Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>117</sup> Gloucestershire County Council. Planning and Environmental Considerations Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                        | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                                                                                                    | 0        | The protection and conservation of the historic environment, including heritage assets and their integrity, character and setting, and of those non-designated heritage assets with archaeological interest is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                               |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                                                                              | +        | Additional traffic associated with minerals development may increase levels of nitrogen oxides and sulphur dioxide, produced by exhaust fumes which can have a detrimental impact on the fabric of historic buildings <sup>118</sup> . The policy may therefore have a minor positive effect on this SA objective, as it will help ensure that proposals minimise their air quality impacts associated with mineral workings so that they are adequate and do not affect the fabric of historic buildings, and therefore the wider air quality of Gloucestershire. |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                            | 0        | The protection and conservation of the historic environment, including heritage assets and their integrity, character and setting, and of those non-designated heritage assets with archaeological interest is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                               |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels | +?       | Vibration from increased traffic may impact on standing structures, earthworks and buried deposits <sup>119</sup> . The policy may therefore have a minor positive effect on this SA objective, as it will help ensure that proposals minimise their adverse impacts of lorry traffic on the environment. However, the exact location of proposals, traffic levels, lorry routing and access arrangements will not be known until the planning application stage, therefore these effects are uncertain.                                                           |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                        | 0        | The protection and conservation of the historic environment, including heritage assets and their integrity, character and setting, and of those non-designated heritage assets with archaeological interest is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                               |

<sup>118</sup> Gloucestershire County Council. Planning and Environmental Considerations Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>119</sup> Gloucestershire County Council. Planning and Environmental Considerations Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014  
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### Proposed Development Management Criteria for the Historic Environment

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | 0        | The Proposed Development Management Criteria for the Historic Environment is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | 0        | The Proposed Development Management Criteria for the Historic Environment is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                                                  | 0        | The Proposed Development Management Criteria for the Historic Environment is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                                             | 0        | The Proposed Development Management Criteria for the Historic Environment is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                                        | 0        | The Proposed Development Management Criteria for the Historic Environment is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.                    | 0        | The Proposed Development Management Criteria for the Historic Environment is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                                      | 0        | The Proposed Development Management Criteria for the Historic Environment is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                     | ++       | The proposed development management criteria is likely to have significant positive effects on this SA objective, as it will ensure that sites identified for mineral extraction in the Local Plan appropriately consider the historic environment, thereby protecting and conserving the historic environment, including the character and setting of heritage assets, which includes historic landscapes, and conservation areas and listed buildings which are located within these landscapes. This is important as minerals development can have a serious impact on the historic environment, although this can vary depending |

| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                    |          | on the nature of the minerals development and associated works, and the nature of the historic environment within which it is sited <sup>120</sup> . The criteria also recognises the need for the mitigation of the impact of minerals development on the historic environment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | The proposed development criteria is likely to have a minor positive effects on this SA objective, as it will ensure that sites identified for mineral extraction in the Local Plan appropriately considered and conserve any archaeological remains that are known to exist prior to working or that are discovered during working, using appropriate mitigation, and could therefore potentially be incorporated into the restoration of sites. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of proposals, which will not be known until the planning application stage.                                                                                                                                                                                                                                                                                               |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | 0        | The Proposed Development Management Criteria for the Historic Environment is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | 0        | The Proposed Development Management Criteria for the Historic Environment is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                   | ++       | The proposed development management criteria is likely to have significant positive effects on this SA objective, as it will ensure that sites identified for mineral extraction in the Local Plan appropriately consider the historic environment, thereby protecting and conserving the historic environment, including heritage assets and their integrity, character and setting, and of those non-designated heritage assets with archaeological interest. This is important as minerals development can have a serious impact on archaeological sites or other elements of the historic environment, although this can vary depending on the nature of the minerals development and associated works, and the nature of the historic environment within which it is sited <sup>121</sup> . The criteria also recognises the need for the mitigation of the impact of minerals development on archaeology and the historic environment |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                     | 0        | The Proposed Development Management Criteria for the Historic Environment is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

<sup>120</sup> Gloucestershire County Council. Planning and Environmental Considerations Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>121</sup> Gloucestershire County Council. Planning and Environmental Considerations Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                        | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                                                                                                    | 0        | The Proposed Development Management Criteria for the Historic Environment is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                                                                              | +        | Additional traffic associated with minerals development may increase levels of nitrogen oxides and sulphur dioxide, produced by exhaust fumes which can have a detrimental impact on the fabric of historic buildings <sup>122</sup> . The proposed development management criteria may therefore have a minor positive effect on this SA objective, as it will ensure that sites identified for mineral extraction in the Local Plan appropriately consider and minimise their impacts on air quality associated with mineral workings so that they are adequate and do not affect the fabric of historic buildings, and therefore the wider air quality of Gloucestershire. |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                            | 0        | The Proposed Development Management Criteria for the Historic Environment is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels | +?       | Vibration from increased traffic may impact on standing structures, earthworks and buried deposits <sup>123</sup> . The proposed development management criteria may therefore have a minor positive effect on this SA objective, as it will help ensure that sites identified for mineral extraction in the Local Plan appropriately consider and minimise their adverse impacts of lorry traffic on the environment. However, the exact location of proposals, traffic levels, lorry routing and access arrangements will not be known until the planning application stage, therefore these effects are uncertain.                                                         |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                        | 0        | The Proposed Development Management Criteria for the Historic Environment is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

<sup>122</sup> Gloucestershire County Council. Planning and Environmental Considerations Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>123</sup> Gloucestershire County Council. Planning and Environmental Considerations Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014  
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### Proposed Policy for Sustainable Transport

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | +        | <p>Transport is a major issue when considering proposals for mineral development as the generation of significant amounts of road traffic can and does have negative impacts on local communities. The proposed policy may have minor positive effects on this SA objective as it encourages alternative modes of transport, requires developments to be supported by a Transport Statement or Transport Assessment, and will not permit development that cannot mitigate adverse impacts (e.g. dust) on the highway network (such as highway safety and operation, or residential amenity). However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of proposals, which will not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on communities, and on the health and wellbeing of people living and working in Gloucestershire, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the proposed policy when determining proposals.</p>     |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | +        | <p>Transport is a major issue when considering proposals for mineral development as the generation of significant amounts of road traffic can and does have negative impacts on local communities. The proposed policy may have minor positive effects on this SA objective as it encourages alternative modes of transport, requires developments to be supported by a Transport Statement or Transport Assessment, and will not permit development that cannot mitigate adverse impacts on the highway network (such as highway safety and operation, or residential amenity), which could involve impacts such as traffic congestion, noise or vibration. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of proposals, which will not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on the amenity of local communities, such as the Proposed Policy for Mitigation of Environmental Effects. Proposed Policies such as these will be used alongside the Proposed Policy when determining proposals.</p> |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                                                  | 0        | Securing and pursuing sustainable transport associated with minerals development is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                                             | 0        | Securing and pursuing sustainable transport associated with minerals development is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| SA Objective and Sub Questions                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | 0        | Securing and pursuing sustainable transport associated with minerals development is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | Securing and pursuing sustainable transport associated with minerals development is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | +        | <p>Transport is a major issue when considering proposals for mineral development as the generation of significant amounts of road traffic can and does have negative impacts on the environment. The proposed policy may have minor positive effects on this SA objective as it encourages alternative modes of transport, requires developments to be supported by a Transport Statement or Transport Assessment, and will not permit development that cannot mitigate adverse impacts on the highway network (such as the local environment), which can include disturbance to biodiversity due to impacts associated with traffic (e.g. noise). However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of proposals, which will not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on biodiversity, such as the Proposed Policy for Biodiversity and Geodiversity. Proposed Policies such as these will be used alongside the Proposed Policy when determining proposals.</p> |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                  | +        | <p>Transport is a major issue when considering proposals for mineral development as the generation of significant amounts of road traffic can and does have negative impacts on the environment. The proposed policy may have minor positive effects on this SA objective as it encourages alternative modes of transport, requires developments to be supported by a Transport Statement or Transport Assessment, and will not permit development that cannot mitigate adverse impacts on the highway network (such as the local environment), which can include impacts on the setting of landscapes due to noise, vibration or traffic congestion. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of proposals, which will not be known until the planning application stage.</p> <p>There are also policies that will mitigate the effects on landscape, such as the Proposed Landscape Policy. Proposed Policies such as these will be used alongside the Proposed Policy when determining proposals.</p>                         |

| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | 0        | Securing and pursuing sustainable transport associated with minerals development is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | 0        | Securing and pursuing sustainable transport associated with minerals development is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | 0        | Securing and pursuing sustainable transport associated with minerals development is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                   | ++?      | <p>Transport is a major issue when considering proposals for mineral development as the generation of significant amounts of road traffic can and does have negative impacts on the environment. The proposed policy may have minor positive effects on this SA objective as it encourages alternative modes of transport, requires developments to be supported by a Transport Statement or Transport Assessment, and will not permit development that cannot mitigate adverse impacts on the highway network (such as the local environment), which can include impacts on the setting, fabric and structure of the historic environment and heritage assets due to noise, vibration and pollution. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of proposals, which will not be known until the planning application stage.</p> <p>There are policies that aim to protect and mitigate effects on the Historic Environment, such as the Proposed Policy for the Historic Environment. Proposed Policies such as these will be used alongside the Proposed Policy when determining proposals.</p> |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                     | 0        | Securing and pursuing sustainable transport associated with minerals development is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                 | 0        | Securing and pursuing sustainable transport associated with minerals development is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                           | ++?      | Transport is a major issue when considering proposals for mineral development as the generation of significant amounts of road traffic can and does have negative impacts on the environment. The proposed policy may have significant positive effects on reducing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                        | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                       |          | air pollution arising from minerals related traffic, as it encourages alternative modes of transport, requires developments to be supported by a Transport Statement or Transport Assessment, and will not permit development that cannot mitigate adverse impacts on the highway network. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of proposals, which will not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                            | 0        | Securing and pursuing sustainable transport associated with minerals development is unlikely to affect this SA objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels | ++?      | Transport is a major issue when considering proposals for mineral development as the generation of significant amounts of road traffic can and does have negative impacts on the environment. The proposed policy may have significant positive effects on this SA objective as it encourages alternative modes of transport, requires developments to be supported by a Transport Statement or Transport Assessment, and will not permit development that cannot mitigate adverse impacts on the highway network (such as highway safety and operation, residential amenity or the local environment). However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of proposals, which will not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                        | +        | <p>Transport is a major issue when considering proposals for mineral development as the generation of significant amounts of road traffic can and does have negative impacts on the environment. The proposed policy may have minor positive effects on this SA objective as it encourages alternative modes of transport, and will not permit development that cannot mitigate adverse impacts on the highway network (such as the local environment). Therefore, the proposed policy may help Gloucestershire reduce contributions to Climate Change. However, any effects would be uncertain as the potential for effects will depend on the exact nature and design of proposals, which will not be known until the planning application stage.</p> <p>When determining proposals for the winning and working of building and roofing stones, the Vision and Strategic Priorities will also be used to help determine proposals, which support reducing climate change impacts via mineral workings and their associated activities. Furthermore, policies such as the Proposed Policy for Sustainable Transport, the Proposed Policy for Biodiversity and Geodiversity, and the Proposed Policy for Mitigation of Environmental Effects all support the Vision and Strategic Priorities in</p> |

| SA Objective and Sub Questions | SA Score | Justification                                                                         |
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|                                |          | reducing climate change impacts, which will be considered when determining proposals. |



### Proposed Strategic Aim for the Cotswold Water Park

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | +        | Parts of the Cotswolds Water Park are used for recreation, and as such, requiring a holistic approach to determine appropriate reclamation and afteruse for mineral workings in the area may have a positive effect on health and wellbeing by offering greater opportunities for active lifestyles. However, effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.                                                                                                                                                                                                |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | 0        | Achieving appropriate reclamation and afteruse for mineral workings in the Cotswolds Water Park is unlikely to affect the amenity of local communities, and no effect is expected on SA objective 2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                                                  | +        | Parts of the Cotswolds Water Park are used for recreation, and as such, requiring a holistic approach to determine appropriate reclamation and afteruse for mineral workings in the area may have a positive effect on sustainable economic development by supporting local businesses in the tourism sector. However, effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.                                                                                                                                                                                       |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                                             | +        | Parts of the Cotswolds Water Park are used for recreation, and as such, requiring a holistic approach to determine appropriate reclamation and afteruse for mineral workings in the area may have a positive effect on employment opportunities by supporting local businesses and workers in the tourism sector. However, effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.                                                                                                                                                                                   |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                                        | -        | The Cotswolds Water Park is located within and in close proximity to the safeguarding zone for RAF Fairford <sup>124</sup> , and mineral sites restored to a form of open water use could affect the safety of commercial or military aerodromes due to the potential for birds to provide a hazard to aircraft. Therefore, the proposed policy could have a minor negative effect on this SA objective. However, effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.<br>The Proposed Policy for Safeguarding Aerodromes will mitigate the effects on the safety |

<sup>124</sup> Gloucestershire County Council. Planning and Environmental Considerations Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
Gloucestershire Minerals Local Plan SA

| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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|                                                                                                                                                                                                                    |          | of aerodromes, and will be considered when determining proposals.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.                                             | 0        | Achieving appropriate reclamation and afteruse for mineral workings in the Cotswolds Water Park is unlikely to affect the conservation of mineral resources from inappropriate development, and no effect is expected on SA objective 6.                                                                                                                                                                                                                                                                                                                                                    |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                                                               | +        | Wetlands areas such as the Cotswold Water Park provide important habitats for over-wintering, migratory and breeding birds <sup>125</sup> . As such, requiring a holistic approach to determine appropriate reclamation and afteruse for mineral workings in the area is likely to have a positive effect on biodiversity. However, effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.     |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | 0?       | Requiring a holistic approach to determine appropriate reclamation and afteruse for mineral workings in the Cotswolds Water Park may lead to improved landscape quality in the area, but as the nature of restoration proposal is not specified in the policy wording a negligible effect is currently expected on SA objective 8. Effects are currently uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | ++       | This policy is expected to have a significant positive effect on SA objective 9 as it directly relates the restoration of mineral sites by requiring a holistic approach to determine appropriate reclamation and afteruse for mineral workings in the Cotswolds Water Park.                                                                                                                                                                                                                                                                                                                |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | +        | Parts of the Cotswolds Water Park are used for recreation, and as such, requiring a holistic approach to determine appropriate reclamation and afteruse for mineral workings in the area is likely to have a positive effect on cultural and recreational assets. However, effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.                                                              |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | 0?       | Requiring a holistic approach to determine appropriate reclamation and afteruse for mineral workings in the Cotswolds Water Park may lead to improved geodiversity in the area where proposals provide for geological conservation, but as the nature of restoration proposal is not specified in the policy wording a negligible effect is currently                                                                                                                                                                                                                                       |

<sup>125</sup> Gloucestershire County Council. Planning and Environmental Considerations Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.  
Gloucestershire Minerals Local Plan SA

| SA Objective and Sub Questions                                                                                                                                             | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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|                                                                                                                                                                            |          | expected on SA objective 8. Effects are currently uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                           | +        | The Cotswold Water Park is an area with important archaeological qualities, and is one of the most intensively investigated archaeological landscapes in Britain as large-scale excavations in advance of gravel extraction continue to discover a wealth of information about prehistoric and Roman settlement in the area <sup>126</sup> . As such, requiring a holistic approach to determine appropriate reclamation and afteruse for mineral workings in the area is likely to have a positive effect on the historic environment. However, effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                             | +        | Wetlands areas such as the Cotswold Water Park are likely to play an important role in water storage. As such, requiring a holistic approach to determine appropriate reclamation and afteruse for mineral workings in the area is likely to have a positive effect on flooding by reducing surface water run-off into the main rivers of the area (Rivers Thames, Coln, Churn, and Ampney Brook <sup>127</sup> ). However, effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.                                                                                                                      |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                         | 0        | Achieving appropriate reclamation and afteruse for mineral workings in the Cotswolds Water Park is unlikely to affect soil quality, and no effect is expected on SA objective 14.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                   | 0        | Achieving appropriate reclamation and afteruse for mineral workings in the Cotswolds Water Park is unlikely to affect air pollution, and no effect is expected on SA objective 15.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply. | +        | Wetlands areas such as the Cotswold Water Park are likely to play an important role in water storage. As such, requiring a holistic approach to determine appropriate reclamation and afteruse for mineral workings in the area may have a positive effect on water quantity and water storage where reclamation proposals incorporate water management measures. However, effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known                                                                                                                                                                                                                                                                             |

<sup>126</sup> Gloucestershire County Council. Planning and Environmental Considerations Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

<sup>127</sup> Gloucestershire County Council. Planning and Environmental Considerations Evidence Paper to Support the MLP Site Options and Draft Policy Framework Consultation. March 2014.

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                        | SA Score | Justification                                                                                                                                                                                                                       |
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|                                                                                                                                                                                                                                                                                                       |          | until a later stage in the Minerals Local Plan preparation or even at the planning application stage.                                                                                                                               |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels | 0        | Achieving appropriate reclamation and afteruse for mineral workings in the Cotswolds Water Park is unlikely to affect mineral related traffic movements, and no effect is expected on SA objective 17.                              |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                        | 0        | Achieving appropriate reclamation and afteruse for mineral workings in the Cotswolds Water Park is unlikely to affect Gloucestershire's contribution or adaptation to climate change, and no effect is expected on SA objective 18. |

### Proposed Restoration Policy

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | 0        | The requirement for mineral workings to be reclaimed to a high environmental standard is unlikely to affect health and wellbeing, and no effect is expected on SA objective 1.                                                                                                                                                                                                                                                                                                                                       |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | 0        | The requirement for mineral workings to be reclaimed to a high environmental standard is unlikely to affect the amenity of local communities, and no effect is expected on SA objective 2.                                                                                                                                                                                                                                                                                                                           |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                                                  | 0        | The requirement for mineral workings to be reclaimed to a high environmental standard is unlikely to affect sustainable economic development, and no effect is expected on SA objective 3.                                                                                                                                                                                                                                                                                                                           |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                                             | 0        | The requirement for mineral workings to be reclaimed to a high environmental standard is unlikely to affect employment opportunities, and no effect is expected on SA objective 4.                                                                                                                                                                                                                                                                                                                                   |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                                        | 0        | The requirement for mineral workings to be reclaimed to a high environmental standard is unlikely to affect the safety of aerodromes, and no effect is expected on SA objective 5.                                                                                                                                                                                                                                                                                                                                   |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.                    | 0        | The requirement for mineral workings to be reclaimed to a high environmental standard is unlikely to affect the conservation of mineral resources, and no effect is expected on SA objective 6.                                                                                                                                                                                                                                                                                                                      |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                                      | +        | The Proposed Restoration Policy requires mineral workings to be reclaimed to a high environmental standard. Reclamation proposals may include nature conservation, which would have a positive effect on biodiversity. However, effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.                                  |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                     | +        | The Proposed Restoration Policy requires mineral workings to be reclaimed to a high environmental standard. Reclamation proposals may include native woodland or nature conservation, which may have a positive effect on landscape character. However, effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. Stronger |

| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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|                                                                                                                                                                                                                    |          | policy wording that requires an element of landscaping within reclamation proposals would add certainty in relation to the positive effects on landscape associated with this policy.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | ++       | This policy is expected to have a significant positive effect on SA objective 9 as it directly relates the restoration of mineral sites, and requires reclamation of mineral workings to be completed in phases, and to a high environmental standard.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | 0?       | The Proposed Restoration Policy requires mineral workings to be reclaimed to a high environmental standard. It is uncertain whether this would include the creation of cultural and recreational assets such as open spaces or Public Rights of Way, and currently a negligible effect is expected on this SA objective. However, effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. Stronger policy wording that requires an element of recreational space within reclamation proposals would add certainty in relation to any potential positive effects. |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | +        | The Proposed Restoration Policy requires mineral workings to be reclaimed to a high environmental standard. Reclamation proposals may include geological conservation, which would have a positive effect on geodiversity. However, effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. Stronger policy wording that requires an element of landscaping would add certainty in relation to the positive effects on geodiversity associated with this policy.                                                                                                 |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                   | 0?       | The Proposed Restoration Policy requires mineral workings to be reclaimed to a high environmental standard. It is uncertain whether this would include the conservation or enhancement of the historic environment, and currently a negligible effect is expected on this SA objective. However, effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. Stronger policy wording that requires consideration of the historic environment within reclamation proposals would add certainty in relation to any potential positive effects.                         |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                     | +        | The Proposed Restoration Policy requires mineral workings to be reclaimed to a high environmental standard. Reclamation proposals may include open water for flood                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

| SA Objective and Sub Questions                                                                                                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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|                                                                                                                                                                                                                          |          | alleviation, which would have a positive effect on preventing flooding. However, effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. Stronger policy wording that requires an element of flood alleviation within reclamation proposals would add certainty in relation to the positive effects on flooding associated with this policy.                                                                                                                                                                                  |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                       | +        | The Proposed Restoration Policy requires mineral workings to be reclaimed to a high environmental standard. Reclamation proposals may be to agriculture, which would have a positive effect on soil quality. However, effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. Stronger policy wording that requires an element of land management within reclamation proposals would add certainty in relation to the positive effects on soil quality associated with this policy.                                           |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                 | 0        | The Proposed Restoration Policy requires mineral workings to be reclaimed to a high environmental standard. It is uncertain whether this would include the protection or enhancement of air quality, and currently a negligible effect is expected on this SA objective. However, effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. Stronger policy wording that requires consideration of air quality within reclamation proposals would add certainty in relation to any potential positive effects.                  |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                               | +        | The Proposed Restoration Policy requires mineral workings to be reclaimed to a high environmental standard. Reclamation proposals may include open water for water storage, which may have a positive effect on water quantity in Gloucestershire. However, effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. Stronger policy wording that requires an element of water management within reclamation proposals would add certainty in relation to the positive effects on SA objective 16 associated with this policy. |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water | 0        | The requirement for mineral workings to be reclaimed to a high environmental standard is unlikely to affect mineral related traffic movements, and no effect is expected on SA objective 17.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

| SA Objective and Sub Questions                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| c) sensitive lorry routing<br>d) the use of sustainable alternative fuels |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 18. To reduce contributions to and to adapt to Climate Change.            | +        | The Proposed Restoration Policy requires mineral workings to be reclaimed to a high environmental standard. Reclamation proposals may include open water for flood alleviation, which would have a positive effect on adaptation to extreme weather events as a result of climate change. However, effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. Stronger policy wording that requires consideration of climate change within reclamation proposals would add certainty in relation to the positive effects on flooding associated with this policy. |



### Proposed Development Management Restoration Policy

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | +        | This policy is likely to have a positive effect on health and wellbeing by requiring proposals for mineral developments to be accompanied by satisfactory reclamation proposals that provide for after uses which will have benefits to the local community, and provide for improved public access to the countryside and recreational and amenity public open space. However, effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.             |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | +        | This policy is likely to have a positive effect on the amenity of local communities by requiring proposals for mineral developments to be accompanied by satisfactory reclamation proposals that provide for after uses which will have benefits to the local community, and provide for improved public access to the countryside and recreational and amenity public open space. However, effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                                                  | +        | This policy is likely to have a positive effect on sustainable economic development in Gloucestershire by requiring proposals for mineral developments to be accompanied by satisfactory reclamation proposals that support and diversify the local economy. However, effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.                                                                                                                       |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                                             | 0        | This policy may generate employment opportunities in Gloucestershire by requiring proposals for mineral developments to be accompanied by satisfactory reclamation proposals that support and diversify the local economy. Restoration proposals are not likely to generate significant levels of employment, and overall a negligible effect is expected. However, effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.                         |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                                        | +        | This policy specifically requires reclamation proposals for a water based afteruse to protect civil and military aviation interests. Therefore, a minor positive effect is expected on SA objective 5 by ensuring that restored mineral sites do not compromise the safety of commercial and military aerodromes.                                                                                                                                                                                                                                                                                                                               |

| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.                                             | 0        | Requiring proposals for mineral developments to be accompanied by satisfactory reclamation proposals is unlikely to affect the safeguarding of mineral resources, and no effect is expected on SA objective 6.                                                                                                                                                                                                                                                                                                                                                                                                     |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                                                               | +        | This policy is likely to have a positive effect on biodiversity assets in Gloucestershire by requiring proposals for mineral developments to be accompanied by satisfactory reclamation proposals that provide net gains for biodiversity and seek to protect and create coherent ecological networks. However, effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.                                                |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | +        | This policy is likely to have a positive effect on landscape quality in Gloucestershire by requiring proposals for mineral developments to be accompanied by satisfactory reclamation proposals that take account of landscape character and setting. However, effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.                                                                                                 |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | ++       | This policy is likely to have a significant positive effect on SA objective 9 as it requires proposals for mineral developments to be accompanied by satisfactory reclamation proposals. The policy also specifically requires reclamation proposals to provide net gains for biodiversity, and is likely to deliver green infrastructure as it requires the provision of public access to the countryside and the protection and creation of ecological networks.                                                                                                                                                 |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | +        | This policy is likely to have a positive effect on cultural and recreational assets in Gloucestershire by requiring proposals for mineral developments to be accompanied by satisfactory reclamation proposals that provide for improved public access to the countryside and recreational open spaces, and the creation of new Public Rights of Way. However, effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | +        | This policy is likely to have a positive effect on geodiversity assets in Gloucestershire by requiring proposals for mineral developments to be accompanied by satisfactory reclamation proposals that benefit geodiversity where practicable. However, effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.                                                                                                        |

| SA Objective and Sub Questions                                                                                                                                             | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                           | 0?       | This policy may help protect Gloucestershire's historic environment by requiring proposals for mineral developments to be accompanied by satisfactory reclamation proposals that take account of the existing landscape character and setting. Restoration proposals may therefore protect the historic environment and the setting of heritage assets, but as this is not explicitly required in the policy wording, a negligible effect is currently expected. Effects are currently uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                             | +        | This policy is likely to have a positive effect on flood risk in Gloucestershire by requiring proposals for mineral developments to be accompanied by satisfactory reclamation proposals that improve flood alleviation capacity. However, effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.                                                                                                                                                                                                                            |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                         | +        | This policy is likely to have a positive effect on soil quality in Gloucestershire by requiring proposals for mineral developments to be accompanied by satisfactory reclamation proposals that restore the best and most versatile agricultural land, and minimise the risk of land instability. However, effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.                                                                                                                                                            |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                   | 0        | Requiring proposals for mineral developments to be accompanied by satisfactory reclamation proposals is unlikely to affect air quality in Gloucestershire, and no effect is expected on SA objective 15.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply. | 0?       | This policy may help protect water quality in Gloucestershire by requiring proposals for mineral developments to be accompanied by satisfactory reclamation proposals protect and create coherent ecological networks. Protecting and creating ecological networks (especially aquatic ecological networks) may benefit water quality in Gloucestershire, but as this is not specified in the policy wording, a negligible effect is currently expected. Effects are currently uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.         |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel                             | +        | This policy may have a positive effect on promoting more sustainable means of transport by requiring proposals for mineral developments to be accompanied by satisfactory reclamation proposals that provide opportunities for the reconstruction, restoration or                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| SA Objective and Sub Questions                                                                                                                      | SA Score | Justification                                                                                                                                                                                                                                                                                                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels |          | safeguarding of protected lines of affected canals. However, effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                      | 0        | Requiring proposals for mineral developments to be accompanied by satisfactory reclamation proposals is unlikely to affect climate change contribution or adaptation in Gloucestershire, and no effect is expected on SA objective 18.                                                                           |

### Proposed Policy for Mitigation of Environmental Effects

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | +        | This policy requires that any adverse environmental or pollution effects arising from mineral development are capable of satisfactory control, mitigation, or elimination. Eliminating these effects could have a positive effect on health and wellbeing that may otherwise be negatively affected by mineral developments. However, effects would be uncertain as it is dependent on the nature of proposals that come forward and the delivery of the required mitigation measures, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | +        | This policy requires that any adverse environmental or pollution effects arising from mineral development are capable of satisfactory control, mitigation, or elimination. Eliminating these effects could have a positive effect on health and wellbeing that may otherwise be negatively affected by mineral developments. However, effects would be uncertain as it is dependent on the nature of proposals that come forward and the delivery of the required mitigation measures, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                                                  | 0        | The mitigation of environmental effects as required by this policy is unlikely to affect sustainable economic development, and therefore no effect is expected on SA objective 3.                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                                             | 0        | The mitigation of environmental effects as required by this policy is unlikely to affect employment opportunities, and therefore no effect is expected on SA objective 4.                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                                        | 0        | The mitigation of environmental effects as required by this policy is unlikely to affect the safety of aerodromes, and therefore no effect is expected on SA objective 5.                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.                    | 0        | The mitigation of environmental effects as required by this policy is unlikely to affect the conservation of mineral resources, and therefore no effect is expected on SA objective 6.                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                                      | +        | This policy requires that any adverse environmental or pollution effects arising from mineral development are capable of satisfactory control, mitigation, or elimination. Eliminating these effects could have a positive effect on biodiversity assets in Gloucestershire that may otherwise be negatively affected by mineral developments. However, effects would be uncertain as it is dependent on the nature of proposals that come forward and the delivery of the required mitigation measures, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning  |

| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                    |          | application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | +?       | This policy requires that any adverse environmental or pollution effects arising from mineral development are capable of satisfactory control, mitigation, or elimination. Eliminating these effects could have a positive effect on landscape character that may otherwise be negatively affected by the visual impact of mineral developments. However, effects would be uncertain as it is dependent on the nature of proposals that come forward and the delivery of the required mitigation measures, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | 0        | The mitigation of environmental effects as required by this policy is unlikely to affect the restoration of mineral sites, and therefore no effect is expected on SA objective 9.                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | +?       | This policy requires that any adverse environmental or pollution effects arising from mineral development are capable of satisfactory control, mitigation, or elimination. Eliminating these effects could have a positive effect on cultural and recreational assets in Gloucestershire that may otherwise be negatively affected by mineral developments. However, effects would be uncertain as it is dependent on the nature of proposals that come forward, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.                                           |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | +?       | This policy requires that any adverse environmental or pollution effects arising from mineral development are capable of satisfactory control, mitigation, or elimination. Eliminating these effects could have a positive effect on geodiversity assets in Gloucestershire that may otherwise be negatively affected by mineral developments. However, effects would be uncertain as it is dependent on the nature of proposals that come forward and the delivery of the required mitigation measures, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.   |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                   | +?       | This policy requires that any adverse environmental or pollution effects arising from mineral development are capable of satisfactory control, mitigation, or elimination. Eliminating these effects could have a positive effect on the historic environment in Gloucestershire that may otherwise be negatively affected by mineral developments. However, effects would be uncertain as it is dependent on the nature of proposals that come forward and the delivery of the required mitigation measures, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning                 |

| SA Objective and Sub Questions                                                                                                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                        |          | application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                                                         | +        | This policy requires that any adverse environmental or pollution effects arising from mineral development are capable of satisfactory control, mitigation, or elimination. Eliminating these effects could have a positive effect on reducing flood risk in Gloucestershire that may otherwise increase due to mineral developments. However, effects would be uncertain as it is dependent on the nature of proposals that come forward and the delivery of the required mitigation measures, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.           |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                                                     | +        | This policy requires that any adverse environmental or pollution effects arising from mineral development are capable of satisfactory control, mitigation, or elimination. Eliminating these effects could have a positive effect on protecting soil quality in Gloucestershire that may otherwise be lost or damaged by mineral developments. However, effects would be uncertain as it is dependent on the nature of proposals that come forward and the delivery of the required mitigation measures, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                               | +        | This policy requires that any adverse environmental or pollution effects arising from mineral development are capable of satisfactory control, mitigation, or elimination. Eliminating these effects could have a positive effect on air quality in Gloucestershire that may otherwise be negatively affected by mineral developments. However, effects would be uncertain as it is dependent on the nature of proposals that come forward and the delivery of the required mitigation measures, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.         |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                             | +        | This policy requires that any adverse environmental or pollution effects arising from mineral development are capable of satisfactory control, mitigation, or elimination. Eliminating these effects could have a positive effect on water quality in Gloucestershire that may otherwise be negatively affected by mineral developments. However, effects would be uncertain as it is dependent on the nature of proposals that come forward and the delivery of the required mitigation measures, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.       |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing | 0        | The requirement for any adverse environmental or pollution effects arising from mineral development to be controlled, mitigated, or eliminated is unlikely to affect mineral related traffic movements, and no effect is expected on SA objective 17.                                                                                                                                                                                                                                                                                                                                                                                  |

| SA Objective and Sub Questions                                 | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------------------------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| d) the use of sustainable alternative fuels                    |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 18. To reduce contributions to and to adapt to Climate Change. | +        | This policy requires that any adverse environmental or pollution effects arising from mineral development are capable of satisfactory control, mitigation, or elimination. Eliminating these effects could have a positive effect on Gloucestershire's contribution and adaptation to climate change if proposals were to include mitigation such as flood alleviation and measures to control carbon emissions. However, effects would be uncertain as it is dependent on the nature of proposals that come forward and the delivery of the required mitigation measures, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. |



### Proposed Policy for Ancillary Development

| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County.                          | +        | This policy restricts ancillary developments within existing mineral sites that would lead to significantly adverse impact on the amenity of adjacent land-uses, and therefore the policy is likely to have a positive effect on health and wellbeing for residents in nearby properties.                                                                                                     |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                                                  | +        | This policy restricts ancillary developments within existing mineral sites that would lead to significantly adverse impact on the amenity of adjacent land-uses, and therefore the policy is likely to have a positive effect on the amenity of local communities.                                                                                                                            |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                                                                           | 0        | The restrictions on ancillary development included within this policy are unlikely to affect sustainable economic development and no effect is therefore expected on SA objective 3.                                                                                                                                                                                                          |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                                                                      | 0        | The restrictions on ancillary development included within this policy are unlikely to affect employment opportunities and no effect is therefore expected on SA objective 4.                                                                                                                                                                                                                  |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                                                                 | 0        | The restrictions on ancillary development included within this policy are unlikely to affect the safety of aerodromes and no effect is therefore expected on SA objective 5.                                                                                                                                                                                                                  |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.                                             | 0        | The restrictions on ancillary development included within this policy are unlikely to affect the safeguarding of mineral resources from sterilisation, as ancillary development is not considered inappropriate. No effect is therefore expected on SA objective 6.                                                                                                                           |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                                                               | 0        | The restrictions on ancillary development included within this policy are unlikely to affect biodiversity and no effect is therefore expected on SA objective 7.                                                                                                                                                                                                                              |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | +        | This policy restricts ancillary developments within existing mineral sites where the design, size and location is not in keeping with the character of the surrounding area, and therefore the policy is likely to have a positive effect on Gloucestershire's landscape.                                                                                                                     |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | This policy requires the life of ancillary developments within existing mineral sites to be limited to that of the mineral working and where appropriate, dismantled in accordance with the restoration proposal. As such, the policy is likely to have a positive effect on the restoration of mineral sites by requiring that ancillary developments are included within restoration works. |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and                                                                                                                                       | 0        | The restrictions on ancillary development included within this policy are unlikely to affect cultural or recreational assets and no effect is therefore expected on SA objective 10.                                                                                                                                                                                                          |

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                        | SA Score | Justification                                                                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| recreational assets.                                                                                                                                                                                                                                                                                  |          |                                                                                                                                                                                 |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                                                                                                                  | 0        | The restrictions on ancillary development included within this policy are unlikely to affect geodiversity and no effect is therefore expected on SA objective 11.               |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                                                                                                      | 0        | The restrictions on ancillary development included within this policy are unlikely to affect the historic environment and no effect is therefore expected on SA objective 12.   |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                                                                                                        | 0        | The restrictions on ancillary development included within this policy are unlikely to affect the likelihood of flooding and no effect is therefore expected on SA objective 13. |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                                                                                                    | 0        | The restrictions on ancillary development included within this policy are unlikely to affect soil quality and no effect is therefore expected on SA objective 14.               |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                                                                              | 0        | The restrictions on ancillary development included within this policy are unlikely to affect air quality and no effect is therefore expected on SA objective 15.                |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                            | 0        | The restrictions on ancillary development included within this policy are unlikely to affect water quality and no effect is therefore expected on SA objective 16.              |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels | 0        | The restrictions on ancillary development included within this policy are unlikely to affect traffic movements and no effect is therefore expected on SA objective 17.          |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                        | 0        | The restrictions on ancillary development included within this policy are unlikely to affect climate change and no effect is therefore expected on SA objective 18.             |

### Proposed Policy for Safeguarding Aerodromes

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | 0        | This policy restricts the development of mineral sites that may otherwise be a hazard to civilian and military aerodromes, and is unlikely to affect health and wellbeing. No effect is expected on this SA objective.                                                                          |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | 0        | This policy restricts the development of mineral sites that may otherwise be a hazard to civilian and military aerodromes, and is unlikely to affect the amenity of local communities. No effect is expected on this SA objective.                                                              |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                                                  | 0        | This policy restricts the development of mineral sites that may otherwise be a hazard to civilian and military aerodromes, and is unlikely to affect sustainable economic development. No effect is expected on this SA objective.                                                              |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                                             | 0        | This policy restricts the development of mineral sites that may otherwise be a hazard to civilian and military aerodromes, and is unlikely to affect employment opportunities in Gloucestershire. No effect is expected on this SA objective.                                                   |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                                        | ++       | The Proposed Policy for Safeguarding Aerodromes restricts mineral developments or reclamation proposals for worked out mineral sites that may pose a hazard to any civilian or military aerodromes. As the policy directly addressed SA objective 5, a significant positive effect is expected. |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.                    | 0        | This policy restricts the development of mineral sites that may otherwise be a hazard to civilian and military aerodromes, and would not safeguard mineral resources from inappropriate development. No effect is expected on this SA objective.                                                |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                                      | 0        | This policy restricts the development of mineral sites that may otherwise be a hazard to civilian and military aerodromes, and is unlikely to affect biodiversity assets in Gloucestershire. No effect is expected on this SA objective.                                                        |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                     | 0        | This policy restricts the development of mineral sites that may otherwise be a hazard to civilian and military aerodromes, and is unlikely to affect landscape quality. No effect is expected on this SA objective.                                                                             |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green       | 0        | This policy restricts the development of mineral sites that may otherwise be a hazard to civilian and military aerodromes, and is unlikely to affect the restoration of mineral sites. No effect is expected on this SA objective.                                                              |

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                        | SA Score | Justification                                                                                                                                                                                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| infrastructure where possible.                                                                                                                                                                                                                                                                        |          |                                                                                                                                                                                                                                                                        |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                                                                                                     | 0        | This policy restricts the development of mineral sites that may otherwise be a hazard to civilian and military aerodromes, and is unlikely to affect cultural and recreational assets. No effect is expected on this SA objective.                                     |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                                                                                                                  | 0        | This policy restricts the development of mineral sites that may otherwise be a hazard to civilian and military aerodromes, and is unlikely to affect Gloucestershire's geodiversity. No effect is expected on this SA objective.                                       |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                                                                                                      | 0        | This policy restricts the development of mineral sites that may otherwise be a hazard to civilian and military aerodromes, and is unlikely to affect the historic environment. No effect is expected on this SA objective.                                             |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                                                                                                        | 0        | This policy restricts the development of mineral sites that may otherwise be a hazard to civilian and military aerodromes, and is unlikely to affect flooding. No effect is expected on this SA objective.                                                             |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                                                                                                    | 0        | This policy restricts the development of mineral sites that may otherwise be a hazard to civilian and military aerodromes, and is unlikely to affect soil quality in Gloucestershire. No effect is expected on this SA objective.                                      |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                                                                              | 0        | This policy restricts the development of mineral sites that may otherwise be a hazard to civilian and military aerodromes, and is unlikely to affect air quality in Gloucestershire. No effect is expected on this SA objective.                                       |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                            | 0        | This policy restricts the development of mineral sites that may otherwise be a hazard to civilian and military aerodromes, and is unlikely to affect water quality in Gloucestershire. No effect is expected on this SA objective.                                     |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels | 0        | This policy restricts the development of mineral sites that may otherwise be a hazard to civilian and military aerodromes, and is unlikely to affect traffic movements related to mineral developments in Gloucestershire. No effect is expected on this SA objective. |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                        | 0        | This policy restricts the development of mineral sites that may otherwise be a hazard to civilian and military aerodromes, and is unlikely to affect Gloucestershire's contribution or adaptation to climate change. No effect is expected on this SA objective.       |

### Proposed Policy for Planning Obligations

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | 0        | The nature of planning obligations suggested in this policy is unlikely to affect health and wellbeing in Gloucestershire, and no effect is therefore expected on this SA objective.                                                                                                                                                                                                                           |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | +        | This policy supports the use of planning obligations that could include the protection of local amenity, and the replacement of local community facilities. As planning obligations will be used to mitigate the negative impacts of mineral developments, any positive effect on this objective is currently uncertain until the nature and impacts of specific proposals and planning obligations are known. |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                                                  | 0        | The nature of planning obligations suggested in this policy is unlikely to affect sustainable economic development in Gloucestershire, and no effect is therefore expected on this SA objective.                                                                                                                                                                                                               |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                                             | 0        | The nature of planning obligations suggested in this policy is unlikely to affect employment opportunities in Gloucestershire, and no effect is therefore expected on this SA objective.                                                                                                                                                                                                                       |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                                        | 0        | The nature of planning obligations suggested in this policy is unlikely to affect the safety of aerodromes in Gloucestershire, and no effect is therefore expected on this SA objective.                                                                                                                                                                                                                       |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.                    | 0        | The nature of planning obligations suggested in this policy is unlikely to safeguard mineral resources from inappropriate development, and no effect is therefore expected on this SA objective.                                                                                                                                                                                                               |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                                      | +        | This policy supports the use of planning obligations that could include environmental enhancement (such as habitat and species protection and creation). As planning obligations will be used to mitigate the negative impacts of mineral developments, any positive effect on this objective is currently uncertain until the nature and impacts of specific proposals and planning obligations are known.    |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                     | +        | This policy supports the use of planning obligations that could include environmental enhancement (such as landscaping). As planning obligations will be used to mitigate the negative impacts of mineral developments, any positive effect on this objective is currently uncertain until the nature and impacts of specific proposals and planning obligations are known.                                    |

| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +?       | This policy supports the use of planning obligations that could include long-term management and restoration of site, afteruse and monitoring. As planning obligations will be used to mitigate the negative impacts of mineral developments, any positive effect on this objective is currently uncertain until the nature and impacts of specific proposals and planning obligations are known.                                                                                                                      |
| 10. To protect conserve and enhance Gloucestershire’s material, cultural and recreational assets.                                                                                                                  | +?       | This policy supports the use of planning obligations that could include the replacement of local community facilities such as open space, sports and recreation facilities, and the creation of new public rights of way. As planning obligations will be used to mitigate the negative impacts of mineral developments, any positive effect on this objective is currently uncertain until the nature and impacts of specific proposals and planning obligations are known.                                           |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | +?       | This policy supports the use of planning obligations that could include the protection or replacement of locally, regionally and nationally important sites of acknowledged importance (which could include Regionally Important Geological Sites <sup>128</sup> ). As planning obligations will be used to mitigate the negative impacts of mineral developments, any positive effect on this objective is currently uncertain until the nature and impacts of specific proposals and planning obligations are known. |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                   | +?       | This policy supports the use of planning obligations that could include the protection or replacement of locally, regionally and nationally important sites of acknowledged importance (which could include heritage designations). As planning obligations will be used to mitigate the negative impacts of mineral developments, any positive effect on this objective is currently uncertain until the nature and impacts of specific proposals and planning obligations are known.                                 |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                     | +?       | This policy supports the use of planning obligations that could include the protection of other natural resources such as the water environment. As planning obligations will be used to mitigate the negative impacts of mineral developments, any positive effect on this objective is currently uncertain until the nature and impacts of specific proposals and planning obligations are known.                                                                                                                    |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                 | +?       | This policy supports the use of planning obligations that could include the protection of other natural resources (which could include soil quality). As planning obligations will be used to mitigate the negative impacts of mineral developments, any positive effect on this objective is currently uncertain until the nature and impacts of specific proposals and planning obligations are known.                                                                                                               |
| 15. To protect and enhance air quality                                                                                                                                                                             | +?       | This policy supports the use of planning obligations that could include traffic restrictions                                                                                                                                                                                                                                                                                                                                                                                                                           |

<sup>128</sup> While the government has proposed to change the name of Regionally Important Geological Sites (RIGS) to Local Geological Sites; in Gloucestershire they are still referred to as RIGS.  
Gloucestershire Minerals Local Plan SA

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                        | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                           |
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| in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                                                                                                                     |          | and environmental enhancements that protect air quality. As planning obligations will be used to mitigate the negative impacts of mineral developments, any positive effect on this objective is currently uncertain until the nature and impacts of specific proposals and planning obligations are known.                                                                                                                             |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                            | +        | This policy supports the use of planning obligations that could include the protection of other natural resources such as the water environment. As planning obligations will be used to mitigate the negative impacts of mineral developments, any positive effect on this objective is currently uncertain until the nature and impacts of specific proposals and planning obligations are known.                                     |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels | +        | This policy supports the use of planning obligations that could include highways and access improvements and traffic restrictions. As planning obligations will be used to mitigate the negative impacts of mineral developments, any positive effect on this objective is currently uncertain until the nature and impacts of specific proposals and planning obligations are known.                                                   |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                        | +        | This policy supports the use of planning obligations that could include traffic restrictions and environmental enhancements that reduce greenhouse gas emissions in Gloucestershire. As planning obligations will be used to mitigate the negative impacts of mineral developments, any positive effect on this objective is currently uncertain until the nature and impacts of specific proposals and planning obligations are known. |



### Proposed Policy for Borrow Pits

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | 0        | Temporary borrow pits are unlikely to affect health and wellbeing in Gloucestershire and no effect is therefore expected on SA objective 1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | +        | This policy only permits the development of temporary borrow pits where proposals would minimise disruption to local communities, and therefore, a positive effect is expected on SA objective 2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                                                  | +        | This policy permits the development of temporary borrow pits where this is required for a specific construction project. The policy will therefore support economic development by enabling construction projects to source minerals more efficiently, and a positive effect is expected on SA objective 3.                                                                                                                                                                                                                                                                                                                                                                      |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                                             | 0        | Temporary borrow pits are unlikely to affect employment opportunities in Gloucestershire and no effect is therefore expected on SA objective 4.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                                        | 0        | Temporary borrow pits are unlikely to affect the safety of aerodromes and no effect is therefore expected on SA objective 5.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.                    | 0        | Temporary borrow pits are unlikely to affect the safeguarding of mineral resources from sterilisation, as borrow pits are not considered to be inappropriate developments. No effect is therefore expected on SA objective 6.                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                                      | +        | This policy only permits the development of temporary borrow pits where proposals can demonstrate that extracting from the temporary site will be less environmentally damaging than importing the required material from mineral sites which already have planning permission. As the protection of biodiversity will need to be balanced with other environmental receptors (such as air quality), any positive effect on SA objective 7 is currently uncertain. The policy also requires that a proposal for a borrow pit is in accordance and is consistent with all other development plan policies (which includes the Proposed Policy for Biodiversity and Geodiversity). |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                     | +        | This policy only permits the development of temporary borrow pits where proposals can demonstrate that extracting from the temporary site will be less environmentally damaging than importing the required material from mineral sites which already have planning permission. As the protection of landscape quality will need to be balanced                                                                                                                                                                                                                                                                                                                                  |



| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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|                                                                                                                                                                                                                    |          | with other environmental receptors (such as air quality), any positive effect on SA objective 8 is currently uncertain. The policy also requires that a proposal for a borrow pit is in accordance and is consistent with all other development plan policies (which includes the Proposed Landscape Policy).                                                                                                                                                                                                                                                                                                                                                                            |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | This policy requires temporary borrow pits permitted to support construction projects to be satisfactorily reclaimed on completion of the construction project. As such, a positive effect is expected on the restoration of mineral sites.                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | 0        | Temporary borrow pits are unlikely to affect cultural and recreational assets in Gloucestershire and no effect is therefore expected on SA objective 10.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | +        | This policy only permits the development of temporary borrow pits where proposals can demonstrate that extracting from the temporary site will be less environmentally damaging than importing the required material from mineral sites which already have planning permission. As the protection of geodiversity will need to be balanced with other environmental receptors (such as air quality), any positive effect on SA objective 11 is currently uncertain. The policy also requires that a proposal for a borrow pit is in accordance and is consistent with all other development plan policies (which includes the Proposed Policy for Biodiversity and Geodiversity).        |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                   | +        | This policy only permits the development of temporary borrow pits where proposals can demonstrate that extracting from the temporary site will be less environmentally damaging than importing the required material from mineral sites which already have planning permission. As the protection of the historic environment will need to be balanced with other environmental receptors (such as air quality), any positive effect on SA objective 12 is currently uncertain. The policy also requires that a proposal for a borrow pit is in accordance and is consistent with all other development plan policies (which includes the Proposed Policy for the Historic Environment). |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                     | +        | This policy only permits the development of temporary borrow pits where proposals can demonstrate that extracting from the temporary site will be less environmentally damaging than importing the required material from mineral sites which already have planning permission. As the prevention of flooding will need to be balanced with other environmental receptors (such as air quality), any positive effect on SA objective 13 is currently uncertain. The policy also requires that a proposal for a borrow pit is in accordance and is consistent with all other development plan policies (which includes the Proposed Policy for Flood Risk).                               |
| 14. To protect and enhance soil / land                                                                                                                                                                             | +        | This policy only permits the development of temporary borrow pits where proposals can                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                        | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| quality in Gloucestershire.                                                                                                                                                                                                                                                                           |          | demonstrate that extracting from the temporary site will be less environmentally damaging than importing the required material from mineral sites which already have planning permission. As the protection of soil quality will need to be balanced with other environmental receptors (such as air quality), any positive effect on SA objective 14 is currently uncertain. The policy also requires that a proposal for a borrow pit is in accordance and is consistent with all other development plan policies (which includes the Proposed Policy for Soils).                                                                                                |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                                                                              | +        | This policy supports the development of temporary borrow pits where the proposed site is located in close proximity to the specified construction project requiring minerals. This is expected to reduce traffic movements related to mineral workings, and a positive effect is expected on this SA objective by reducing transport related air pollution.                                                                                                                                                                                                                                                                                                        |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                            | +        | This policy only permits the development of temporary borrow pits where proposals can demonstrate that extracting from the temporary site will be less environmentally damaging than importing the required material from mineral sites which already have planning permission. As the protection of water quality will need to be balanced with other environmental receptors (such as air quality), any positive effect on SA objective 16 is currently uncertain. The policy also requires that a proposal for a borrow pit is in accordance and is consistent with all other development plan policies (which includes the Proposed Policy for Water Quality). |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels | ++       | This policy supports the development of temporary borrow pits where the proposed site is located in close proximity to the specified construction project requiring minerals. This is expected to have a significant positive effect on reducing traffic movements related to mineral workings.                                                                                                                                                                                                                                                                                                                                                                    |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                        | +        | This policy supports the development of temporary borrow pits where the proposed site is located in close proximity to the specified construction project requiring minerals. This is expected to reduce traffic movements related to mineral workings, and a positive effect is expected on this SA objective by reducing transport related greenhouse gas emissions.                                                                                                                                                                                                                                                                                             |

### Proposed Policy for Cumulative impact

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                         |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | +        | This policy requires that when minerals related development are considering the cumulative effects of previous and existing minerals development on local communities, that particular regard is given to social cohesion and inclusion, and that an assessment of health impacts is included. As such, a positive effect is expected on SA objective 1.                                                              |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | +        | This policy requires that when minerals related development are considering the cumulative effects of previous and existing minerals development on local communities, that particular regard is given to social cohesion and inclusion, and that an assessment of noise, odour and health impacts is included. As such, a positive effect is expected on amenity, and on SA objective 2.                             |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                                                  | +        | This policy requires that when minerals related development are considering the cumulative effects of previous and existing minerals development on local communities, that particular regard is given to economic potential. As such, a positive effect is expected on SA objective 3.                                                                                                                               |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                                             | +        | This policy requires that when minerals related development are considering the cumulative effects of previous and existing minerals development on local communities, that particular regard is given to economic potential. This could include consideration of employment opportunities, but as this is not specifically mentioned in the policy, any positive effect on this SA objective is currently uncertain. |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                                        | 0        | Consideration of cumulative effects of previous and existing minerals development is unlikely to affect the safety of aerodromes, and no effect is expected on this SA objective.                                                                                                                                                                                                                                     |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.                    | 0        | Consideration of cumulative effects of previous and existing minerals development is unlikely to affect the safeguarding of mineral resources from sterilisation from inappropriate development. No effect is therefore expected on SA objective 6.                                                                                                                                                                   |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                                      | +        | This policy requires that when minerals related development are considering the cumulative effects of previous and existing minerals development on local communities, that particular regard is given to environmental quality, and that an assessment of ecological impacts is included. As such, a positive effect is expected on SA objective 7.                                                                  |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                     | +        | This policy requires that when minerals related development are considering the cumulative effects of previous and existing minerals development on local communities, that particular regard is given to environmental quality, and that an assessment of visual                                                                                                                                                     |

| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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|                                                                                                                                                                                                                    |          | impacts is included. As such, a positive effect is expected on SA objective 8.                                                                                                                                                                                                                                                                                                                                                                    |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | 0        | Consideration of cumulative effects of previous and existing minerals development is unlikely to affect the restoration of minerals sites, and no effect is expected on this SA objective.                                                                                                                                                                                                                                                        |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | +        | This policy requires that when minerals related development are considering the cumulative effects of previous and existing minerals development on local communities, that particular regard is given to social cohesion and inclusion. This could include consideration of cultural and recreational assets, but as this is not specifically mentioned in the policy, any positive effect on this SA objective is currently uncertain.          |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | +        | This policy requires that when minerals related development are considering the cumulative effects of previous and existing minerals development on local communities, that particular regard is given to environmental quality. This could include consideration of geodiversity, but as this is not specifically mentioned in the policy, any positive effect on this SA objective is currently uncertain.                                      |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                   | +        | This policy requires that when minerals related development are considering the cumulative effects of previous and existing minerals development on local communities, that particular regard is given to environmental quality. This could include consideration of the historic environment, but as this is not specifically mentioned in the policy, any positive effect on this SA objective is currently uncertain.                          |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                     | +        | This policy requires that when minerals related development are considering the cumulative effects of previous and existing minerals development on local communities, that particular regard is given to environmental quality. This could include consideration of flooding issues, but as this is not specifically mentioned in the policy, any positive effect on this SA objective is currently uncertain.                                   |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                 | +        | This policy requires that when minerals related development are considering the cumulative effects of previous and existing minerals development on local communities, that particular regard is given to environmental quality. This could include consideration of soil quality, but as this is not specifically mentioned in the policy, any positive effect on this SA objective is currently uncertain.                                      |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                           | +        | This policy requires that when minerals related development are considering the cumulative effects of previous and existing minerals development on local communities, that particular regard is given to environmental quality, and that an assessment of traffic, and dust impacts is included. As such, a positive effect is expected on air quality (by avoiding an unacceptable cumulative impact from traffic related air pollution) and on |

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                        | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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|                                                                                                                                                                                                                                                                                                       |          | SA objective 15.                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                            | +?       | This policy requires that when minerals related development are considering the cumulative effects of previous and existing minerals development on local communities, that particular regard is given to environmental quality. This could include consideration of water quality, but as this is not specifically mentioned in the policy, any positive effect on this SA objective is currently uncertain.                                                       |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels | +        | This policy requires that when minerals related development are considering the cumulative effects of previous and existing minerals development on local communities, that particular regard is given to environmental quality, social cohesion and inclusion, and economic potential, and that an assessment of traffic impacts is included. As such, a positive effect is expected on SA objective 17.                                                           |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                        | +        | This policy requires that when minerals related development are considering the cumulative effects of previous and existing minerals development on local communities, that particular regard is given to environmental quality, and that an assessment of traffic impacts is included. As such, a positive effect is expected on air quality (by avoiding an unacceptable cumulative impact from traffic related greenhouse gas emissions) and on SA objective 18. |

### Proposed Policy for Soils

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | 0        | Protecting land of higher agricultural quality from potential loss and adverse effects arising from mineral developments is unlikely to affect health and wellbeing, and no effect is expected on SA objective 1.                                                                                                                                                                                                                                                                                                                  |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | 0        | Protecting land of higher agricultural quality from potential loss and adverse effects arising from mineral developments is unlikely to affect the amenity of local communities, and no effect is expected on SA objective 2.                                                                                                                                                                                                                                                                                                      |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                                                  | +        | As this policy protects agricultural land of higher grade, and requires any proposal for mineral development to demonstrate the impact of the mineral working to the local economy, a positive effect is expected on sustainable economic development in Gloucestershire.                                                                                                                                                                                                                                                          |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                                             | ++?      | As this policy protects agricultural land of higher grade, and requires any proposal for mineral development to demonstrate the impact of the mineral working to the local economy, a positive effect is expected on maintaining employment opportunities in the traditional agricultural sector. Any positive effect is currently uncertain as the policy would not promote diversification of the economy, and may restrict employment opportunities in the minerals sector if fewer proposals are permitted in Gloucestershire. |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                                        | 0        | Protecting land of higher agricultural quality from potential loss and adverse effects arising from mineral developments is unlikely to affect the safety of aerodromes, and no effect is expected on SA objective 5.                                                                                                                                                                                                                                                                                                              |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.                    | 0        | Protecting land of higher agricultural quality from potential loss and adverse effects arising from mineral developments is unlikely to safeguard mineral resources from inappropriate development, and no effect is expected on SA objective 6.                                                                                                                                                                                                                                                                                   |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                                      | 0        | Protecting land of higher agricultural quality from potential loss and adverse effects arising from mineral developments is unlikely to affect biodiversity in Gloucestershire, and no effect is expected on SA objective 7.                                                                                                                                                                                                                                                                                                       |
| 8. To protect, conserve and enhance                                                                                                                                                       | 0        | Protecting land of higher agricultural quality from potential loss and adverse effects                                                                                                                                                                                                                                                                                                                                                                                                                                             |

| SA Objective and Sub Questions                                                                                                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                     |
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| the landscape in Gloucestershire.                                                                                                                                                                                        |          | arising from mineral developments is unlikely to affect landscape in Gloucestershire, and no effect is expected on SA objective 8.                                                                                                                |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible.       | 0        | Protecting land of higher agricultural quality from potential loss and adverse effects arising from mineral developments is unlikely to affect the restoration of mineral sites, and no effect is expected on SA objective 9.                     |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                        | 0        | Protecting land of higher agricultural quality from potential loss and adverse effects arising from mineral developments is unlikely to protect cultural or recreational assets in Gloucestershire, and no effect is expected on SA objective 10. |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                                     | 0        | Protecting land of higher agricultural quality from potential loss and adverse effects arising from mineral developments is unlikely to affect geodiversity in Gloucestershire, and no effect is expected on SA objective 11.                     |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                         | 0        | Protecting land of higher agricultural quality from potential loss and adverse effects arising from mineral developments is unlikely to affect the historic environment, and no effect is expected on SA objective 12.                            |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                           | 0        | Protecting land of higher agricultural quality from potential loss and adverse effects arising from mineral developments is unlikely to affect flooding in Gloucestershire, and no effect is expected on SA objective 13.                         |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                       | ++       | As this policy protects agricultural land of higher grade, a significant positive effect is expected on SA objective 14 as the policy directly relates to soil quality in Gloucestershire.                                                        |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                 | 0        | Protecting land of higher agricultural quality from potential loss and adverse effects arising from mineral developments is unlikely to protect air quality, and no effect is expected on SA objective 15.                                        |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                               | 0        | Protecting land of higher agricultural quality from potential loss and adverse effects arising from mineral developments is unlikely to protect water quality, and no effect is expected on SA objective 16.                                      |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water | 0        | Protecting land of higher agricultural quality from potential loss and adverse effects arising from mineral developments is unlikely to affect traffic movements, and no effect is expected on SA objective 17.                                   |

| SA Objective and Sub Questions                                            | SA Score | Justification                                                                                                                                                                                                                              |
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| c) sensitive lorry routing<br>d) the use of sustainable alternative fuels |          |                                                                                                                                                                                                                                            |
| 18. To reduce contributions to and to adapt to Climate Change.            | 0        | Protecting land of higher agricultural quality from potential loss and adverse effects arising from mineral developments is unlikely to affect contribution or adaptation to climate change, and no effect is expected on SA objective 18. |



### Proposed Policy for Public Rights of Way

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                      |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | +        | This policy requires mineral developments that affect defined Public Rights of Way to provide an appropriate diversion, and proposals that are likely to materially affect National Trails will not be permitted. This may have a positive effect on health and well-being by maintaining recreational assets that may be used for keeping healthy.                |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | +        | This policy requires mineral developments that affect defined Public Rights of Way to provide an appropriate diversion, and proposals that are likely to materially affect National Trails will not be permitted. This may have a positive effect on health and well-being by maintaining recreational assets that contribute to the amenity of local communities. |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                                                  | 0        | Protecting Public Rights of Way from potential adverse effects arising from mineral developments is unlikely to promote sustainable economic development, and no effect is expected on SA objective 3.                                                                                                                                                             |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                                             | 0        | Protecting Public Rights of Way from potential adverse effects arising from mineral developments is unlikely to affect employment opportunities in Gloucestershire, and no effect is expected on SA objective 4.                                                                                                                                                   |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                                        | 0        | Protecting Public Rights of Way from potential adverse effects arising from mineral developments is unlikely to affect the safety of aerodromes, and no effect is expected on SA objective 5.                                                                                                                                                                      |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.                    | 0        | Protecting Public Rights of Way from potential adverse effects arising from mineral developments is unlikely to safeguard mineral resources from inappropriate development, and no effect is expected on SA objective 6.                                                                                                                                           |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                                      | 0        | Protecting Public Rights of Way from potential adverse effects arising from mineral developments is unlikely to affect biodiversity assets in Gloucestershire, and no effect is expected on SA objective 7.                                                                                                                                                        |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                     | 0        | Protecting Public Rights of Way from potential adverse effects arising from mineral developments is unlikely to affect landscape in Gloucestershire, and no effect is expected on SA objective 8.                                                                                                                                                                  |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including                                                                               | 0?       | Protecting Public Rights of Way from potential adverse effects arising from mineral developments is unlikely to affect the restoration of mineral sites, and a negligible effect is expected on SA objective 9. However, the policy does require that Public Rights of                                                                                             |

| SA Objective and Sub Questions                                                                                                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible.                                                                                                                                                 |          | Way are reinstated, and there may be opportunities for additional benefits and the delivery of green infrastructure through restoration.                                                                                                                                                                                                                                                                                                                                                                                                    |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                                                      | ++?      | This policy requires mineral developments that affect defined Public Rights of Way to provide an appropriate diversion, and proposals that are likely to materially affect National Trails will not be permitted. A significant positive effect is therefore expected on protecting Gloucestershire's recreational assets, but as the policy states that in exceptional circumstances, the Mineral Planning Authority may consider that a diversion of the Public Right of Way is not required, the positive effect is currently uncertain. |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                                                                   | 0        | Protecting Public Rights of Way from potential adverse effects arising from mineral developments is unlikely to affect geodiversity in Gloucestershire, and no effect is expected on SA objective 11.                                                                                                                                                                                                                                                                                                                                       |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                                                       | 0        | Protecting Public Rights of Way from potential adverse effects arising from mineral developments is unlikely to affect the historic environment, and no effect is expected on SA objective 12.                                                                                                                                                                                                                                                                                                                                              |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                                                         | 0        | Protecting Public Rights of Way from potential adverse effects arising from mineral developments is unlikely to prevent flooding, and no effect is expected on SA objective 13.                                                                                                                                                                                                                                                                                                                                                             |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                                                     | 0        | Protecting Public Rights of Way from potential adverse effects arising from mineral developments is unlikely to protect soil quality, and no effect is expected on SA objective 14.                                                                                                                                                                                                                                                                                                                                                         |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                               | 0        | Protecting Public Rights of Way from potential adverse effects arising from mineral developments is unlikely to protect air quality, and no effect is expected on SA objective 15.                                                                                                                                                                                                                                                                                                                                                          |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                             | 0        | Protecting Public Rights of Way from potential adverse effects arising from mineral developments is unlikely to protect water quality, and no effect is expected on SA objective 16.                                                                                                                                                                                                                                                                                                                                                        |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing | 0        | Protecting Public Rights of Way from potential adverse effects arising from mineral developments is unlikely to reduce traffic movements, and no effect is expected on SA objective 17.                                                                                                                                                                                                                                                                                                                                                     |

| SA Objective and Sub Questions                                 | SA Score | Justification                                                                                                                                                                                                      |
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| d) the use of sustainable alternative fuels                    |          |                                                                                                                                                                                                                    |
| 18. To reduce contributions to and to adapt to Climate Change. | 0        | Protecting Public Rights of Way from potential adverse effects arising from mineral developments is unlikely to affect contribution or adaptation to climate change, and no effect is expected on SA objective 18. |

### Proposed Policy for Buffer Zones

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | ++?      | The proposed policy for Buffer Zones will maintain an appropriate distance between mineral developments and sensitive land-uses, which is likely to include residential properties and other uses where people may suffer from adverse health and well-being if they were located too close to mineral sites. As the policy specifically addresses this objective, the positive effect is expected to be significant. Buffer distances will take into account topography, landscape features, and proposed mitigation measures. As distances are not known at this stage, any positive effect on this SA objective is currently uncertain.       |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | ++?      | The proposed policy for Buffer Zones will maintain an appropriate distance between mineral developments and sensitive land-uses, which is likely to include residential properties and other uses where the amenity of local communities may be adversely affected if they were located too close to mineral sites. As the policy specifically addresses this objective, the positive effect is expected to be significant. Buffer distances will take into account topography, landscape features, and proposed mitigation measures. As distances are not known at this stage, any positive effect on this SA objective is currently uncertain. |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                                                  | 0        | Maintaining a buffer zone between mineral developments and sensitive land-uses is unlikely to promote sustainable economic development, and no effect is expected on SA objective 3.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                                             | 0        | Maintaining a buffer zone between mineral developments and sensitive land-uses is unlikely to affect employment opportunities in Gloucestershire, and no effect is expected on SA objective 4.                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                                        | 0?       | The proposed policy for Buffer Zones will maintain an appropriate distance between mineral developments and sensitive land-uses. This may include commercial and military aerodromes, but as this is not stated in the policy, a negligible and uncertain effect is expected on this SA objective. In addition, buffer distances are not known at this stage, which adds to the uncertainty in relation to the effect on the safety of aerodromes. There is a specific policy included in the MLP that will mitigate the effects on aerodromes (the Proposed Policy for Safeguarding Aerodromes).                                                |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.                    | 0        | This policy is intended to safeguard sensitive land-uses from potential adverse effects arising from mineral developments rather than safeguarding mineral resources from sterilisation from inappropriate development. No effect is therefore expected on SA objective 6.                                                                                                                                                                                                                                                                                                                                                                       |

| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                                                               | 0?       | Buffer zones in this policy are intended to protect sensitive land-uses from potential adverse effects arising from minerals development. It is uncertain whether this would include biodiversity designations, and a negligible and uncertain effect is therefore expected on this SA objective. There is a specific policy included in the MLP that will mitigate effects on biodiversity (the Proposed Policy for Biodiversity and Geodiversity).      |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | 0?       | Buffer zones in this policy are intended to protect sensitive land-uses from potential adverse effects arising from minerals development. It is uncertain whether this would include landscape character, and a negligible and uncertain effect is therefore expected on this SA objective. There is a specific policy included in the MLP that will mitigate effects on landscape (the Proposed Landscape Policy).                                       |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | 0        | Maintaining a buffer zone between mineral developments and sensitive land-uses will not affect the restoration of mineral sites, and no effect is expected on SA objective 9.                                                                                                                                                                                                                                                                             |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | 0?       | Buffer zones in this policy are intended to protect sensitive land-uses from potential adverse effects arising from minerals development. It is uncertain whether this would include cultural and recreational assets, and a negligible and uncertain effect is therefore expected on this SA objective. There is a specific policy included in the MLP (the Proposed Policy for Public rights of Way) that will mitigate effects on recreational assets. |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | 0?       | Buffer zones in this policy are intended to protect sensitive land-uses from potential adverse effects arising from minerals development. It is uncertain whether this would include geodiversity designations, and a negligible and uncertain effect is therefore expected on this SA objective. There is a specific policy included in the MLP that will mitigate effects on geodiversity (the Proposed Policy for Biodiversity and Geodiversity).      |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                   | 0?       | Buffer zones in this policy are intended to protect sensitive land-uses from potential adverse effects arising from minerals development. It is uncertain whether this would include heritage designations, and a negligible and uncertain effect is therefore expected on this SA objective. There is a specific policy included in the MLP that will mitigate effects on the historic environment (the Proposed Policy for the Historic Environment).   |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                     | 0        | Maintaining a buffer zone between mineral developments and sensitive land-uses is unlikely to prevent inappropriate development in the floodplain, and no effect is expected on SA objective 13.                                                                                                                                                                                                                                                          |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                 | 0        | Maintaining a buffer zone between mineral developments and sensitive land-uses is unlikely to protect soil quality, and no effect is expected on SA objective 14.                                                                                                                                                                                                                                                                                         |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet                                                                                                                                         | 0        | Maintaining a buffer zone between mineral developments and sensitive land-uses is                                                                                                                                                                                                                                                                                                                                                                         |

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                        | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| local, national and international objectives for air quality.                                                                                                                                                                                                                                         |          | unlikely to protect air quality, and no effect is expected on SA objective 15.                                                                                                                                                                                                                                                                                                                                                   |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                            | 0        | Maintaining a buffer zone between mineral developments and sensitive land-uses is unlikely to protect water quality, and no effect is expected on SA objective 16.                                                                                                                                                                                                                                                               |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels | +        | Maintaining a buffer zone between mineral developments and sensitive land-uses is unlikely to affect lorry traffic movements, but may have a minor positive effect on reducing the adverse impacts of minerals related transport as sensitive lorry routing will be more likely. As the sensitive land-uses and buffer distances are not specified in the policy, any positive effect on SA objective 17 is currently uncertain. |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                        | 0        | Maintaining a buffer zone between mineral developments and sensitive land-uses is unlikely to affect contribution or adaptation to climate change, and no effect is expected on SA objective 18.                                                                                                                                                                                                                                 |

**Appendix 6**  
Site appraisal matrices

## Crushed Rock Forest of Dean

### CRFD1 (A) Stowe Hill/Clearwell

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | -?       | <p>The northern boundary of the site is located within 100m of Longley Farm to the north east, while the nearest settlement is Stowe, located less than 500m to the west of the site. Therefore, the site could have a minor negative effect on health due to the potential for dust (PM10) to have a negative effect on the health of local residents and communities within close proximity to the site. However, this effect is uncertain, as the extent to which dust affects the nearby residents and settlement will depend on local circumstances such as the topography, nature of the landscape and the respective location of the site, Longley Farm and Stowe in relation to the prevailing wind direction. In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.</p>                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -        | <p>The northern boundary of the site is located within 100m of Longley Farm to the north east, while the nearest settlement is Stowe, located less than 500m to the west of the site. Therefore, the site could have a minor negative effect on amenity for the nearby residents and settlement due to the potential noise and vibration associated with the mineral extraction operations. Noise and vibration effects may be more likely as the site would work crushed rock which would require blasting prior to excavation. However, the extent of these effects is very dependent on the scale of the operations and type of activities undertaken within the site as well as any potential mitigation measures proposed, which would be assessed at the planning application stage. While there may be some unavoidable short term effects due to noisy activities, it is assumed that mineral extraction at any of the potential sites will be well operated and that mitigation measures implemented should be sufficient to avoid any potential long term amenity effects.</p> <p>The site is not within 100m of any areas allocated for new residential development in the Forest of Dean District Council Adopted Core Strategy, therefore there should not be any land use conflict.</p> <p>The site is within 1km of the settlements Stowe, Clearwell and Trow Green and is</p> |



| SA Objective and Sub Questions                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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|                                                                                                                                                                        |          | <p>proposed as an extension area to the existing Clearwell/Stowe Hill Quarry, therefore, continuing crushed rock extraction activity in this area could have a cumulative effect on the amenity of the local community.</p> <p>The GCC assessment notes that the site has the potential to be worked by either existing or replacement plant/access. A new access route could provide benefits to the local amenity of the residents in Stowe Green by reducing lorry traffic on existing local roads. Therefore, if the site were to be allocated for mineral extraction, the GCC assessment notes that planning permission for use of the site would require conditions to enforce the use of the new access, which could mitigate the potential negative effects of lorry traffic. However, in the short term, there could be additional noise and vibration impacts during construction of the new access route.</p> |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                               | 0        | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that own them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant.                                                                                                               |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | 0        | The site is not within an aerodrome safeguarding area and is therefore not expected to have an effect on this objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | -?       | The site is within 1km of Wye Valley & Forest of Dean Bat Sites SAC and Wye Valley Woodlands SAC, and the Key Wildlife Sites (KWSs) Noxon Pond, Orles Wood and Slade,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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|                                                                                                                                                                                                                    |          | <p>and Leyshill &amp; Slade Bottom Woods and minerals extraction could have a minor negative effect on habitats and species in these designated sites. However, these effects would be uncertain as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage.</p> <p>The GCC site assessment notes that in order to determine whether bats from the SAC sites could be affected, any development proposal will need to be screened to see if an appropriate assessment under the Habitats Regulations is required due to the potential for a likely significant effect on the Wye Valley &amp; Forest of Dean Bat Sites SAC and/or Wye Valley Woodlands SAC either alone or in combination with other plans or projects.</p> |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | -?       | <p>The site is 150m to the east of the Wye Valley AONB and could therefore have a minor negative effect on this asset. The GCC assessment notes that the site is also part of the unworked preferred area allocated within the former GCC Minerals Local Plan (2003) and as such is part of the plateau feature that is concealed from long distance views by Orles Wood to the south and from other directions by the dip of slope and current quarry screening bunds. However, the effect on the landscape would be uncertain as a more detailed assessment would be required once proposals are known at the planning application stage.</p>                                                                                                                                                                     |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | <p>The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p>                                                                                                                                                                                                                                                                                                                                                                            |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | -        | <p>The site includes the PRoW footpaths FSB/138/1 and RNE/67/1 along its western boundaries. The GCC PRoW Team has identified that a diversion would be required for footpath FSB/138/1. A temporary closure order would be required for all paths that it would not be possible to divert. Therefore, the site could have minor negative effects on recreation activities as the PRoWs might be out of use while diverted, and minerals extraction at the site could make nearby recreational assets less attractive for users.</p>                                                                                                                                                                                                                                                                                |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | -?       | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

| SA Objective and Sub Questions                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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|                                                                                                                                          |          | <p>not be known until the planning application stage.</p> <p>The western boundary of the site is within 400m of Stowe Green Quarry which is designated as a Regionally Important Geological Site<sup>129</sup>. The southern boundary of the site is also within 1km of Slade Brook SSSI (a national site of geological interest) and the GCC assessment notes there may be potential for impacts on the tufa dam feature of the Slade Brook SSSI. Therefore, the site could have a minor negative effect on this objective. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the site, and therefore will need detailed assessment at the planning application stage.</p>                                                                                                                                                                                                                                                                                                        |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                         | -?       | <p>The western boundary of the site is within 500m of Camp NE of Stowe Scheduled Ancient Monument and a cluster of listed buildings, the closest being the Chapel of St Margaret at Longley Farm (Grade II). Additionally, the northern boundary of the site is within 1km of Clearwell Castle Registered Park and Garden, and Clearwell Conservation Area and the listed buildings located within it and adjacent to it. Therefore, the site could have a minor negative effect on the setting of these assets, however, the effects would be uncertain as a more detailed assessment would be required once proposals are known.</p> <p>Furthermore the GCC assessment notes that the archaeological interest in the site is as yet uncertain, therefore assessment and evaluation will be required to establish the extent and significance of any heritage assets present within the site. However, the GCC assessment notes that there would be no historic environment implications from any depth increase in the existing quarry.</p> |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                           | 0        | The site is within flood zone 1 which has a low probability of flooding and is therefore not expected to have an effect on flood risk areas. Therefore, no effect is likely to occur on this objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                       | -        | The site covers a medium area (10ha) and is within grade 3 agricultural land and could therefore have a minor negative effect on protecting or enhancing soil/land quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality. | -        | The site is not within 1km of an AQMA but is more than 1km from the strategic highway network. Traffic associated with the site is therefore likely to travel further along local roads. The site is therefore expected to have a minor negative impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

<sup>129</sup> While the government has proposed to change the name of Regionally Important Geological Sites (RIGS) to Local Geological Sites; in Gloucestershire they are still referred to as RIGS.

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                        | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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|                                                                                                                                                                                                                                                                                                       |          | the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                            | ?        | The site is not within a source protection zone but does overlay a Secondary A aquifer which may be capable of supporting water supplies at a local scale, and may form an important source of base flow to rivers. However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                           |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels | -?       | This site is more than 1km from the strategic highway network and as traffic associated with the site is therefore likely to travel further along local roads, there could be a minor negative effect on reducing the impacts of lorry traffic on the environment and communities. However, this is uncertain as the GCC assessment notes that the site has the potential to be worked by either existing or replacement plant/access. A new access route could provide benefits to the local amenity of the residents in Stowe Green by reducing lorry traffic on existing local roads. Therefore, if the site were to be allocated for mineral extraction, the GCC assessment notes that planning permission for use of the site would require conditions to enforce the use of the new access, which could mitigate the potential negative effects of lorry traffic. |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                        | ?        | At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

## CRFD1 (B) Stowe Hill/Clearwell

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | -?       | Longley Farm is located within the site boundary and many residential properties are adjacent to the site boundary, including Trowgreen Farm and Yew Tree Cottage (adjacent to the western boundary of the site) and Shop House Farm (adjacent to the northern boundary). The nearest settlement is Stowe, located less than 500m to the west of the site. Therefore, the site could have a minor negative effect on health due to the potential for dust (PM10) to have a negative effect on the health of local residents, communities and visitors to the site. However, this effect is uncertain, as the extent to which dust affects the nearby residents and settlement will depend on local circumstances such as the topography, nature of the landscape and the respective location of the site, Longley Farm, Trowgreen Farm, Yew Tree Cottage and Stowe in relation to the prevailing wind direction. In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.                                                                                                                                                                                             |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -        | <p>Longley Farm is located within the site boundary and many residential properties are adjacent to the site boundary, including Trowgreen Farm and Yew Tree Cottage (adjacent to the western boundary of the site) and Shop House Farm (adjacent to the northern boundary). The nearest settlement is Stowe, located less than 500m to the west of the site. Therefore, the site could have a minor negative effect on amenity for the nearby residents and settlement due to the potential noise and vibration associated with the mineral extraction operations. Noise and vibration effects may be more likely as the site would work crushed rock which would require blasting prior to excavation. However, the extent of these effects is very dependent on the scale of the operations and type of activities undertaken within the site as well as any potential mitigation measures proposed, which would be assessed at the planning application stage. While there may be some unavoidable short term effects due to noisy activities, it is assumed that mineral extraction at any of the potential sites will be well operated and that mitigation measures implemented should be sufficient to avoid any potential long term amenity effects.</p> <p>The site is not within 100m of any areas allocated for new residential development in</p> |

| SA Objective and Sub Questions                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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|                                                                                                                                                                        |          | <p>the Forest of Dean District Council Adopted Core Strategy, therefore there should not be any landuse conflict.</p> <p>The site is within 1km of the settlements Stowe, Clearwell and Trow Green and is proposed as an extension area to the existing Clearwell/Stowe Hill Quarry, therefore, continuing crushed rock extraction activity in this area could have a cumulative effect on the amenity of the local community.</p> <p>The GCC assessment notes that the site has the potential to be worked by either existing or replacement plant/access. A new access route could provide benefits to the local amenity of the residents in Stowe Green by reducing lorry traffic on existing local roads. Therefore, if the site were to be allocated for mineral extraction, the GCC assessment notes that planning permission for use of the site would require conditions to enforce the use of the new access, which could mitigate the potential negative effects of lorry traffic. However, in the short term, there could be additional noise and vibration impacts during construction of the new access route.</p> |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                               | 0        | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that own them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant.                                                                                                                                                                                                                                                                                                                      |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | 0        | The site is not within an aerodrome safeguarding area and is therefore not expected to have an effect on this objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

| SA Objective and Sub Questions                                                                                                                  | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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|                                                                                                                                                 |          | from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                            | -/+?     | <p>The site is assessed as having a potential negative impact on biodiversity as the northern boundary is within 700m of Tudor Farm Bank SSSI, Old Bow and Old Ham Mines SSSI and Wye Valley &amp; Forest of Dean Bat Sites SAC. Additionally, the site is within 1km of many Key Wildlife Sites, one of which (Orles Wood KWS) is adjacent to the southwest boundary of the site. However, the GCC site assessment notes that in reality impacts on the SAC are unlikely. Bats using Old Bow &amp; Old Hams SSSI (part of the SAC) may be affected if there were measurable potential impacts on roosts sites, e.g. if underground cavities connecting to the site were affected (but these connections are not known/proven). Impacts on Tudor Farm Bank SSSI are also thought to be unlikely. However, if the site is enhanced then it could make a contribution to Wye Woods Strategic Nature Area (SNA), as the site overlaps this SNA. Therefore, the site has been assessed as having the potential to have a mixed minor negative and positive effect on this objective. However, these effects would be uncertain as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage.</p> <p>In addition, the GCC site assessment notes in order to determine whether bats from the SAC site could be affected, any development proposal will need to be screened to see if an appropriate assessment under the Habitats Regulations is required due to the potential for a likely significant effect on the Wye Valley &amp; Forest of Dean Bat Sites SAC and/or Wye Valley Woodlands SAC either alone or in combination with other plans or projects.</p> |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                           | -?       | <p>The southern boundary of the site is within 300m of the Wye Valley AONB and could therefore have a minor negative effect on this asset. The GCC assessment notes that the site covers part of land that dips East and South. As the land falls away it does not benefit from the same sort of screening for close to medium viewpoints as the preferred area in the GCC Minerals Local Plan (2003). Therefore, sufficient landscape mitigation might be required. As some longer distant viewpoints are from higher ground such mitigation would need to assess the potential impact from those locations and develop mitigation accordingly. However, the effect on the landscape would be uncertain as a more detailed assessment would be required once proposals are known at the planning application stage.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of | +        | <p>The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

| SA Objective and Sub Questions                                                                    | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| biodiversity, and delivery of green infrastructure where possible.                                |          | would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets. | -        | The PRow footpath RNE/66/2 runs through the site west to east, and footpath RNE/66/1 runs along the western boundary of the site. Therefore, the site could have minor negative effects on recreation activities as the PRow's might be out of use while diverted, and minerals extraction at the site could make nearby recreational assets less attractive for users.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                              | 0        | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> <p>The site is within 1km but greater than 500m from the Slade Brook geological SSSI and three Regionally Important Geological Sites: Stowe Green Quarry (west of the site); Stock Wood (north of the site); and Bearse Farm Quarry (south of the site) and is not considered likely to affect geodiversity.</p>                                                                                                                                                                                                                                                                                         |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.  | -?       | <p>The north boundary of the site is within 250m of of Clearwell Castle Registered Park and Garden, and within 450m of Clearwell Conservation Area and the listed buildings located within it and adjacent to it. The eastern boundary of the site is within 100m of Toll House Listed Building (Grade II), and the western boundary is within 1km of Camp NE of Stowe Scheduled Ancient Monument. Therefore, the site could have a minor negative effect on the setting of these assets, however, the effects would be uncertain as a more detailed assessment would be required once proposals are known.</p> <p>Furthermore the GCC assessment notes that the archaeological interest in the site is as yet uncertain, therefore assessment and evaluation will be required to establish the extent and significance of any heritage assets present within the site. However, the GCC assessment notes that there would be no historic environment implications from any depth increase in the existing quarry.</p> |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.    | 0        | The site is within flood zone 1 which has a low probability of flooding and is therefore not expected to have an effect on flood risk areas. Therefore, no effect is likely to occur on this objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |



| SA Objective and Sub Questions                                                                                                                                                                                                                                                                        | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                                                                                                    | -        | The site covers a large area (48ha) and is within grade 3 agricultural land and could therefore have a minor negative effect on protecting or enhancing soil/land quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                                                                              | -        | The site is not within 1km of an AQMA but is more than 1km from the strategic highway network. Traffic associated with the site is therefore likely to travel further along local roads. The site is therefore expected to have a minor negative impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                         |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                            | ?        | The site is not within a source protection zone but the majority of the site overlies a Principal aquifer which may provide a high level of water storage and support water supply and/or river base flow on a strategic scale. However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                               |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels | -?       | This site is more than 1km from the strategic highway network and as traffic associated with the site is therefore likely to travel further along local roads, there could be a minor negative effect on reducing the impacts of lorry traffic on the environment and communities. However, this is uncertain as the GCC assessment notes that the site has the potential to be worked by either existing or replacement plant/access. A new access route could provide benefits to the local amenity of the residents in Stowe Green by reducing lorry traffic on existing local roads. Therefore, if the site were to be allocated for mineral extraction, the GCC assessment notes that planning permission for use of the site would require conditions to enforce the use of the new access, which could mitigate the potential negative effects of lorry traffic. |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                        | ?        | At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

### CRFD1 (C) Stowe Hill/Clearwell

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | -?       | Avenue Villas are located within the site boundary, to the north of the site. A number of residential properties are adjacent to the site boundary, including: Yew Tree Cottage (the western boundary); Roads Farm and Roads Farm House (the southern boundary); Bream Cross Farm (the southeast corner of the boundary). Furthermore, Noxon Farm is within 300m of the eastern boundary of the site. Therefore, the site could have a minor negative effect on health due to the potential for dust (PM10) to have a negative effect on the health of local residents, communities and visitors to the site. However, this effect is uncertain, as the extent to which dust affects the nearby residents and settlement will depend on local circumstances such as the topography, nature of the landscape and the respective location of the site, Avenue Villas, the adjacent residential properties and Noxon Farm in relation to the prevailing wind direction. In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.                                                                                                                                                                                                                                                                          |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -        | <p>Avenue Villas are located within the site boundary, to the north of the site. A number of residential properties are adjacent to the site boundary, including: Yew Tree Cottage (the western boundary); Roads Farm and Roads Farm House (the southern boundary); Bream Cross Farm (the southeast corner of the boundary). Furthermore, Noxon Farm is within 300m of the eastern boundary of the site. Therefore, the site could have a minor negative effect on amenity for the nearby residents and settlement due to the potential noise and vibration associated with the mineral extraction operations. Noise and vibration effects may be more likely as the site would work crushed rock which would require blasting prior to excavation. However, the extent of these effects is very dependent on the scale of the operations and type of activities undertaken within the site as well as any potential mitigation measures proposed, which would be assessed at the planning application stage. While there may be some unavoidable short term effects due to noisy activities, it is assumed that mineral extraction at any of the potential sites will be well operated and that mitigation measures implemented should be sufficient to avoid any potential long term amenity effects.</p> <p>The site is not within 100m of any areas allocated for new residential development in the Forest of Dean District Council Adopted Core Strategy, therefore there should not</p> |

| SA Objective and Sub Questions                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                                                                                                                                                                        |          | <p>be any landuse conflict.</p> <p>The site is within 1km of the settlements Stowe, Clearwell, Trow Green and Bream and is proposed as an extension area to the existing Clearwell/Stowe Hill Quarry, therefore, continuing crushed rock extraction activity in this area could have a cumulative effect on the amenity of the local community.</p> <p>The GCC assessment notes that the site would potentially be worked by land access for a conveyor tunnel under the B4228. This may reduce impacts on local communities as additional site access may not be necessary. However, effects would be uncertain as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage.</p>                                   |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                               | 0        | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that own them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant. |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | 0        | The site is not within an aerodrome safeguarding area and is therefore not expected to have an effect on this objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                                   |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | -/+?     | The site is assessed as having a potential negative impact on biodiversity due to the southeast corner of the site being within 1km of Devil's Chapel Scowles SSSI and Wye                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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|                                                                                                                                                                                                                    |          | Valley & Forest of Dean Bat Sites SAC. It is also within 1km of many Key Wildlife Sites, including: Noxon Pond; Bream Tufts; Priors Pool; Orles Wood; and Slade, Leyshill & Slade Bottom Woods. Therefore, the site could have a significant negative effect on this objective. However, the GCC site assessment notes that the potential impacts on the SAC would relate to bat usage of the site, and considers that in reality, impacts on the SAC are unlikely. Bats using Devils Chapel Scowles SSSI (part of the SAC) may be affected if there were measurable potential impacts on roosts sites, e.g. if underground cavities connecting to parcel C were affected (but these connections are not known/proven). Also the site is adjacent to Wye Woods 3 SNA and if the site is enhanced through restoration, enhancement opportunities of strategic importance are possible for Wye Woods 3 SNA. Therefore, the site has been assessed as having the potential to have a mixed minor negative and positive effect on this objective. However, these effects would be uncertain as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage. In addition, the GCC site assessment notes in order to determine whether bats from the SAC site could be affected, any development proposal will need to be screened to see if an appropriate assessment under the Habitats Regulations is required due to the potential for a likely significant effect on the Wye Valley & Forest of Dean Bat Sites SAC and/or Wye Valley Woodlands SAC either alone or in combination with other plans or projects. |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | -?       | The western boundary of the site is within 300m of the Wye Valley AONB and could therefore have a minor negative effect on this asset. The GCC assessment notes that the site includes a mixture of pasture and dipping land that depending on what parts are worked will require assessment of potential impact and appropriate mitigation. However, the effect on the landscape would be uncertain as a more detailed assessment would be required once proposals are known at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | -        | The PRoW footpaths RNE/70/1 and RNE/71/1 run through the site north to south, and many footpaths (e.g. RNE/65/1 on the eastern boundary) adjoin the site boundary. GCC PRoW Team has identified that a diversion would be required for RNE/70/1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| SA Objective and Sub Questions                                                                   | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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|                                                                                                  |          | <p>Also, the restricted byway FSB/21 runs along the southern boundary of the site. The GCC PRoW Team concluded that mineral developments could well offer opportunity of enhancement of FSB/21 but at this stage and without checking on the ground or consulting the parishes it is too early to be exact.</p> <p>Therefore, the site could have minor negative effects on recreation activities as the PRoWs might be out of use while diverted, and minerals extraction at the site could make nearby recreational assets less attractive for users.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                             | -?       | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> <p>The site is within 500m of three Regionally Important Geological Sites: Bearse Farm Quarry (southwest of the site); and Bream Tufts and Bream Quarry (southeast of the site). Additionally the western boundary of the site is within 1km of Slade Brook SSSI (a national site of geological interest) and the GCC assessment notes there may be potential for impacts on the tufa dam feature of the Slade Brook SSSI. Therefore, the site is could have a minor negative effect on this objective. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, and therefore will need detailed assessment at the planning application stage.</p> |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting. | -?       | <p>The northern boundary of the site is within 100m of Toll House Listed Building (Grade II) and the southern boundary is within 1km of a few Listed Buildings, the closest being Bream Court Farmhouse Listed Building (Grade II) approximately 700m away. Additionally, the northern boundary of the site is within 1km of of Clearwell Castle Registered Park and Garden. Therefore, the site could have a minor negative effect on the setting of these assets, however, the effects would be uncertain as a more detailed assessment would be required once proposals are known.</p> <p>Furthermore the GCC assessment notes that the archaeological interest in the site is as yet uncertain, therefore assessment and evaluation will be required to establish the extent and significance of any heritage assets present within the site. However, the GCC assessment notes that there would be no historic environment implications from any depth increase in the existing quarry.</p>                                                                                                                                         |

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                        | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                                                                                                        | 0        | The site is within flood zone 1 which has a low probability of flooding and is therefore not expected to have an effect on flood risk areas. Therefore, no effect is likely to occur on this objective.                                                                                                                                                                                                                                                                                                                                                                   |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                                                                                                    | -        | The site covers a large area (137.5ha) and is within grade 3 agricultural land and could therefore have a minor negative effect on protecting or enhancing soil/land quality.                                                                                                                                                                                                                                                                                                                                                                                             |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                                                                              | -        | The site is not within 1km of an AQMA but is more than 1km from the strategic highway network. Traffic associated with the site is therefore likely to travel further along local roads. The site is therefore expected to have a minor negative impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.                           |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                            | ?        | The site is not within a source protection zone but the majority of the site overlies a Principal aquifer which may provide a high level of water storage and support water supply and/or river base flow on a strategic scale. However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage. |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels | -?       | This site is more than 1km from the strategic highway network and as traffic associated with the site is therefore likely to travel further along local roads, there could be a minor negative effect on reducing the impacts of lorry traffic on the environment and communities. However, this is uncertain as the GCC assessment notes that the site would potentially be worked by land access for a conveyor tunnel under the B4228. This may reduce impacts on this objective as lorry traffic may be reduced on local roads.                                       |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                        | ?        | At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                              |



## CRFD2 (A) Drybrook

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | -?       | Ash Farm is located within and adjacent to the southern boundary of the site and Perlay (a residential building) is located within the northern area of the site. Forest View (a residential building) is also located within 100m of the southern boundary. The site is also located within 100m of the settlements Drybrook and Ruardean. Therefore, the site could have a minor negative effect on health due to the potential for dust (PM10) to have a negative effect on the health of local residents, communities and visitors to the site. However, this effect is uncertain, as the extent to which dust affects the nearby residents and settlement will depend on local circumstances such as the topography, nature of the landscape and the respective location of the site, Ash Farm, Perlay and Forest View in relation to the prevailing wind direction. In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -        | <p>Ash Farm is located within and adjacent to the southern boundary of the site and Perlay (a residential building) is located within the northern area of the site. Forest View (a residential building) is also located within 100m of the southern boundary. The site is also located within 100m of the settlements Drybrook and Ruardean. Therefore, the site could have a minor negative effect on amenity for the nearby residents and settlement due to the potential noise and vibration associated with the mineral extraction operations. Noise and vibration effects may be more likely as the site would work crushed rock which would require blasting prior to excavation. However, the extent of these effects is very dependent on the scale of the operations and type of activities undertaken within the site as well as any potential mitigation measures proposed, which would be assessed at the planning application stage. While there may be some unavoidable short term effects due to noisy activities, it is assumed that mineral extraction at any of the potential sites will be well operated and that mitigation measures implemented should be sufficient to avoid any potential long term amenity effects.</p> <p>Drybrook has been identified in the Forest of Dean District Council Adopted Core Strategy (February 2012) to provide 100 new dwellings within the defined settlement. Therefore, as the site is within 100m of Drybrook there is the potential for the identified housing to be located within close proximity to the site, which could result in landuse</p> |



| SA Objective and Sub Questions                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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|                                                                                                                                                                        |          | <p>conflict. However, at this stage the location of the new dwellings is not known.</p> <p>The site is within 1km of the settlements Drybrook and Ruardean and is proposed as an extension area to the currently mothballed Drybrook Quarry. Whilst it was operational, Drybrook Quarry produced a variety of limestone aggregate product and a certain amount of plant and buildings remain on the site. It is anticipated that the proposed site would only be considered as a potential extension area to Drybrook Quarry. Therefore, crushed rock extraction activity would continue in this area and could have a cumulative effect on the amenity of the local community.</p> <p>The GCC assessment states that as the site would be an extension to the existing quarry it might provide an opportunity for a new highway access which would enable lorries to reach the strategic road network with less impact on Drybrook. However, this is uncertain as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage.</p> |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                               | 0        | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that own them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant.                                                                                                                                                                                                                                                                                                              |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | 0        | The site is not within an aerodrome safeguarding area and is therefore not expected to have an effect on this objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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|                                                                                                                                                                                                                    |          | from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                                                               | 0        | The site is unlikely to have impacts on biodiversity due to the site being mainly agricultural grass land with some hedgerows and trees, within 1km of two local wildlife sites (Hope Mansell and Lea Bailey Enclosure (both within Herefordshire)), and the southern boundary of the site being within 400m of Ruardean Hills Key Wildlife Site. The GCC assessment noted some potential for biodiversity enhancement if the small woods nearby to the site were to be linked to any restoration scheme. However, these effects would be minor and are not certain as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage. Therefore, overall the site is not expected to affect this objective.                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | 0?       | <p>The site is more than 1km away from any AONB and is therefore considered unlikely to have an effect on this asset. It is uncertain whether there would be effects on local landscape character, as impacts on the landscape will depend upon factors such as how prominent sites are in the landscape, the level of screening proposed, and the character of the surrounding landscape, which has not been assessed within the GCC assessment at this stage</p> <p>The GCC assessment notes that the GCC Minerals Local Plan (2003) contained a criterion for landscape which stated:</p> <p><i>"A stony ridge line runs in an east westerly direction along the face of the existing quarry from a northerly view. The ridge curves in a westerly direction across the northern part of the 'Preferred Area' (this site). The whole face is extremely visible from Drybrook and the surrounding Ruardean area. Proposals for mineral working would require very careful landscape considerations to mitigate impact. In particular there should be no breaking of the ridge described above and no working on west or north sides of the ridge and substantial landscaping measures should be incorporated in the proposals."</i></p> |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | -        | The PRoW footpath DRD/11/1 runs through the middle of the site north to south, while footpath DRD/72/1 runs through a small area in the northeast of the site and then runs along the eastern boundary of the site. The GCC PRoW Team has identified that a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

| SA Objective and Sub Questions                                                                   | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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|                                                                                                  |          | <p>diversion will be necessary for footpath DRD/11/1. Furthermore, the footpaths DRD/43/1 and DRD/10 run along the western and norther boundaries of the site respectively. The GCC PRoW Team has identified that a diversion will be necessary for footpath DRD/43/1. The GCC PRoW Team also state that mineral developments could well offer opportunity of enhancement, but at this stage and without checking on the ground or consulting the parishes, it is too early to be exact.</p> <p>Therefore, the site could have minor negative effects on recreation activities as the PRoWs might be out of use while diverted, and minerals extraction at the site could make nearby recreational assets less attractive for users.</p>                                                                                                                                                                                    |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                             | 0        | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> <p>The site is more than 500m from any national site of geological interest (SSSI) or Regionally Important Geological Site and is therefore not expected to affect this objective.</p>                                                                                                                                                                                                                                                                                                                        |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting. | -?       | <p>The western boundary of the site is within 1km of Ruardean Conservation Area and some of the listed buildings located within it, the closest being Holick Monument located approximately 960m to the west of the site. The site is also located within 1km of two other listed buildings, one located to the north east and one to the south west of the site. Therefore, the site could have a minor negative effect on the setting of these assets, however, the effects would be uncertain as a more detailed assessment would be required once proposals are known.</p> <p>The archaeological interest in this site is as yet uncertain. Evidence from the surrounding landscape and the previous, adjacent quarrying suggests the presence of some early activity of prehistoric or Roman date. Assessment/evaluation will be required to establish the extent and significance of any heritage assets present.</p> |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.   | 0        | <p>The site is within flood zone 1 which has a low probability of flooding and is therefore not expected to have an effect on flood risk areas. Therefore, no effect is likely to occur on this objective.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 14. To protect and enhance soil / land quality in Gloucestershire.                               | -        | <p>The site covers a medium area (11ha) and is mainly within grade 2 agricultural land and could therefore have a minor negative effect on protecting or enhancing soil/land</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                        | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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|                                                                                                                                                                                                                                                                                                       |          | quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                                                                              | -        | The site is not within 1km of an AQMA but is more than 1km from the strategic highway network. Traffic associated with the site is therefore likely to travel further along local roads. The site is therefore expected to have a minor negative impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.                                                                                                          |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                            | ?        | The site is not within a source protection zone but the site overlies a Principal aquifer which may provide a high level of water storage and support water supply and/or river base flow on a strategic scale. However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage.                                                                                                |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels | -?       | This site is more than 1km from the strategic highway network and as traffic associated with the site is therefore likely to travel further along local roads, there could be a minor negative effect on reducing the impacts of lorry traffic on the environment and communities. However, this is uncertain as the GCC assessment notes that as the site would be an extension to the existing quarry it might provide an opportunity for a new highway access, which would enable lorries to reach the strategic road network with less impact on Drybrook. This may reduce impacts on this objective as lorry traffic may be reduced on local roads. |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                        | ?        | At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                             |

### CRFD3 (A) Stowfield

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | 0        | <p>The site is not within 100m of any sensitive receptors. The closest sensitive receptor is Kiln Cottage located 300m to the north of the site boundary, while the closest settlement, which is Staunton, is located over 200m to the north of the site. Therefore, the site is expected to have no effects on the health of local residents and communities.</p> <p>In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -        | <p>The site is not within 100m of any sensitive receptors. The closest sensitive receptor is Kiln Cottage located 300m to the north of the site boundary, while the closest settlement, which is Staunton, is located over 200m to the north of the site. Therefore, the site is expected to have no effects on the amenity of local communities.</p> <p>The site is not within 100m of any areas allocated for new residential development in the Forest of Dean District Council Adopted Core Strategy, therefore there should not be any landuse conflict.</p> <p>The site is located within 1km of the settlement Staunton and is proposed as an extension area to the existing Stowfield Quarry, therefore, continuing crushed rock extraction activity in this area could have a minor negative cumulative effect on the amenity of the local community due to the potential noise and vibration associated with the mineral extraction operations. Noise and vibration effects may be more likely as the site would work crushed rock which would require blasting prior to excavation. However, the extent of these effects is very dependent on the scale of the operations and type of activities undertaken within the site as well as any potential mitigation measures proposed, which would be assessed at the planning application stage. While there may be some unavoidable short term effects due to noisy activities, it is assumed that mineral extraction at any of the potential sites will be well operated and that mitigation measures implemented should be sufficient to avoid any potential long term amenity effects.</p> |

| SA Objective and Sub Questions                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                               | 0        | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that own them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant.                                                                                                                                                                                                                                                        |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | 0        | The site is not within an aerodrome safeguarding area and is therefore not expected to have an effect on this objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | -/+?     | The southern boundary of the site is within 100m of Dingle Wood SSSI, but the GCC site assessment notes that impacts on this SSSI have already been addressed and screened out through design and operation details of existing consent for the adjacent much larger existing workings. The site is also located within Blakes Wood Key Wildlife Site and could have a negative effect due to loss of habitat; it is also within 1km of Staunton Woods Key Wildlife Site. As such, the GCC site assessment notes that a compensatory package similar but smaller than for the consented extension would be needed for Blakes Wood Key Wildlife Site to provide compensatory habitat elsewhere. It also notes that while impacts on a range of protected species are possible, in the long-term small improvements for biodiversity might be achievable but could be marginal. Therefore, the site could have some minor negative effects in the short term, although mitigation would be possible, and minor positive effects in the long-term could be achieved. |

| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | --?      | <p>The site located within the Wye Valley AONB and could therefore have a significant negative effect on this asset. However, the effect on the landscape would be uncertain as a more detailed assessment would be required once proposals are known at the planning application stage.</p> <p>Furthermore the GCC assessment notes that the GCC Minerals Local Plan (2003) states that as the whole Preferred Area lies within the AONB, mineral operators are required to undertake a full assessment of the impact of mineral working through the extension of mineral working. Similar bunding and tree planting which is present at the existing quarry will be required to mitigate any impact in the Preferred Area. Subject to taking account of the archaeological interest present, operators should undertake landscaping and extensive planting well in advance of mineral extraction in order to mitigate likely landscape impact which could result from extension of the quarry into the Preferred Area.</p> |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | ++?      | <p>The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | -        | <p>The PRoW footpath RST/18/1 runs adjacent to the northern section of the western boundary of the site and the GCC PRoW Team has identified that the path is well used and that a diversion will be necessary. Furthermore, the GCC PRoW Team state that mineral developments could well offer opportunity of enhancement but at this stage and without checking on the ground or consulting the parishes it is too early to be exact.</p> <p>Therefore, the site could have minor negative effects on recreation activities as the PRoWs might be out of use while diverted, and minerals extraction at the site could make nearby recreational assets less attractive for users.</p>                                                                                                                                                                                                                                                                                                                                      |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | -?       | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

| SA Objective and Sub Questions                                                                                                                                             | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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|                                                                                                                                                                            |          | The site is within 500m of Stowfield Quarry Regionally Important Geological Site and could therefore have a minor negative effect on this objective. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                           | --?      | <p>The Scowles located north of Blake's Wood and located in Blake's Wood, which are Scheduled Ancient Monuments, are adjacent to and located within the eastern boundary of the site. There are also Scowles (registered as Scheduled Ancient Monuments) located in Dingle Wood approximately 50m to the south of the site. Additionally the northern boundary of the site is within 500m of Staunton Conservation Area and the listed buildings located within it, the closest being Church Farmhouse (Grade II) located approximately 480m away. Therefore, the site could have a significant negative effect on the setting of these assets, however the effects would be uncertain as a more detailed assessment would be required once proposals are known.</p> <p>As mentioned, the site affects two scheduled ancient monuments. The GCC assessment notes that these should be excluded from any preferred area in the MLP with an appropriate buffer zone. On site survey will probably be necessary to determine the exact appropriate boundary.</p> |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                             | 0        | The site is within flood zone 1 which has a low probability of flooding and is therefore not expected to have an effect on flood risk areas. Therefore, no effect is likely to occur on this objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                         | 0        | The site is not within Grade 1, 2 or 3 agricultural land and is therefore not expected to have an effect on protecting or enhancing soil/land quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                   | 0        | The site is within 200m of the A4136 but is not within 1km of an AQMA; therefore the site is expected to have a negligible impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply. | ?        | The site is not within a source protection zone but the site overlies a Principal aquifer which may provide a high level of water storage and support water supply and/or river base flow on a strategic scale. GCC state that GCC Minerals Local Plan (2003) identifies that there is a large potable groundwater supply at Redbrook which must be protected.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |



| SA Objective and Sub Questions                                                                                                                                                                                                                                                                                               | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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|                                                                                                                                                                                                                                                                                                                              |          | <p>There are also many smaller licensed and unlicensed supplies in the vicinity. Ground conditions in the vicinity of Staunton make septic tank effluent disposal problematical. The result is a layer of sewage effluent below the ground surface around Staunton. Proposals for mineral working should not breach the clay layer. Any proposals for mineral working would require pre-application monitoring of groundwater conditions. In particular the location of the impermeable base to the Lower Dolomite formation should be ascertained. Proposals for mineral working should not breach this impermeable layer.</p> <p>However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage.</p> |
| <p>17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:</p> <p>a) reducing the need to travel</p> <p>b) promoting more sustainable means of transport e.g. by rail or water</p> <p>c) sensitive lorry routing</p> <p>d) the use of sustainable alternative fuels</p> | +        | <p>This site is within 200m of the A4136 and could therefore have a minor positive effect on reducing the impacts of lorry traffic on the environment and communities as traffic associated with the site should not have to travel far on local roads. Furthermore, the GCC assessment notes that the site could only be considered as a potential extension to the existing quarry using the existing access and infrastructure, which may help reduce impacts of lorry traffic on the environment and communities. However, the effects would be uncertain as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage.</p>                                                                                                                                                                                                                                                            |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                                               | ?        | <p>At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

#### CRFD4 (A) Hewelsfield

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | -?       | Woodlands Farm is located within the site and Cowshill Farm is adjacent to the northern boundary of the site, while the closest settlement is Hewelsfield, located within 500m of the site. Therefore, the site could have a minor negative effect on health due to the potential for dust (PM10) to have a negative effect on the health of local residents, communities and visitors to the site. However, this effect is uncertain, as the extent to which dust affects the nearby residents and settlement will depend on local circumstances such as the topography, nature of the landscape and the respective location of the site, Woodlands Farm, Cowshill Farm and Hewelsfield in relation to the prevailing wind direction. In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -        | <p>Woodlands Farm is located within the site and Cowshill Farm is adjacent to the northern boundary of the site, while the closest settlement is Hewelsfield, located within 500m of the site. Therefore, the site could have a minor negative effect on amenity for the nearby residents and settlement due to the potential noise and vibration associated with the mineral extraction operations. Noise and vibration effects may be more likely as the site would work crushed rock which would require blasting prior to excavation. However, the extent of these effects is very dependent on the scale of the operations and type of activities undertaken within the site as well as any potential mitigation measures proposed, which would be assessed at the planning application stage. While there may be some unavoidable short term effects due to noisy activities, it is assumed that mineral extraction at any of the potential sites will be well operated and that mitigation measures implemented should be sufficient to avoid any potential long term amenity effects.</p> <p>The site is not within 100m of any areas allocated for new residential development in the Forest of Dean District Council Adopted Core Strategy, therefore there should not be any landuse conflict.</p> <p>There are no other existing mineral sites also within 1km of nearby settlements; therefore the site is not expected to have a cumulative effect on the amenity of the</p> |

| SA Objective and Sub Questions                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                                                                                                                                                                        |          | <p>local community.</p> <p>The site is currently farmland and is not associated with any mineral operations. The GCC site assessment notes that there are major concerns in relation to highways access, as the B4228 to the north and south of the site is not deemed suitable due to its width and alignment, and alternative access to the A48 has not been identified but would be required if mitigation could not be provided along the B4228. These access issues could cause negative effects for local communities from lorry traffic. However, effects would be uncertain as the potential for effects will depend on the exact nature and design of the site access, which would not be known until the planning application stage.</p>                                                         |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                               | 0        | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that own them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant. |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | 0        | The site is not within an aerodrome safeguarding area and is therefore not expected to have an effect on this objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                                   |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | -/+?     | The site could have potentially minor negative and positive impacts on biodiversity as the site is adjacent to Oakhill Wood KWS and is within 1km of other KWSs. The GCC site assessment notes that the site could provide a useful enhancement to the                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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|                                                                                                                                                                                                                    |          | Tidenham Woods SNA if woodland mosaic based restoration is proposed. Furthermore, woodland creation during restoration next to the Oakhill Wood KWS would also be beneficial but extraction would need to have some stand off from this adjacent site to avoid impacts such as dust occurring. Furthermore, the GCC site assessment notes that impacts on any international or national site is unlikely but with a little uncertainty. All of these effects are uncertain as they will depend on the nature and design of the site, including its restoration proposals. Therefore, overall, mixed minor positive and negative but uncertain effects are identified for this objective.                                                                                                                                                             |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | --?      | The site is located within the Wye Valley AONB and could therefore have a significant negative effect on this asset. The site is currently farmland and is not associated with any mineral operations. The GCC site assessment notes that there are major concerns in relation to highways access, as the B4228 to the north and south of the site is not deemed suitable due to its width and alignment, and alternative access to the A48 has not been identified but would be required if mitigation could not be provided along the B4228. Therefore, if alternative access is required it could also result in visual effects on the landscape as a new road would be created. However, effects on the landscape would be uncertain as a more detailed assessment would be required once proposals are known at the planning application stage. |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +?       | The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | -        | <p>The PRoW footpath FHE/54/2 runs along the southern boundary of the site and through the southwest corner of the site. The GCC PRoW Team has identified that a diversion will be necessary for the footpath which may have minor negative effects while the PRoW would be temporarily closed while it is diverted. However, GCC PRoW Team state that mineral developments could well offer opportunity of enhancement but at this stage and without checking on the ground or consulting the parishes it is too early to be exact.</p> <p>The site could also have minor negative effects on recreation activities, as minerals extraction at the site could make nearby recreational assets (such as the PRoW) less</p>                                                                                                                           |

| SA Objective and Sub Questions                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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|                                                                                                                                          |          | attractive for users.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                     | 0        | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> <p>The site is more than 500m from any national site of geological interest (SSSI) or Regionally Important Geological Site and is therefore not expected to affect this objective.</p>                                                                                                                                                                                                                                                                                                             |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                         | -?       | <p>The western boundary of the site is within 1km of sections of Offa's Dyke, which are designated at Scheduled Ancient Monuments. Additionally, the site is located within 1km of Hewelsfield Conservation Area and the Motte Castle Scheduled Ancient Monument and listed buildings located within it. Therefore, the site could have a minor negative effect on the setting of these assets, however, the effects would be uncertain as a more detailed assessment would be required once proposals are known.</p> <p>GCC state that further archaeological assessment should be undertaken as soon as is appropriate to update a 2003 desk-based assessment (commissioned by a prospective applicant for planning permission) with the results of more recent research. Evaluation will then be required to establish the full extent of the heritage assets present on the site and their significance.</p> |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                           | 0        | The site is within flood zone 1 which has a low probability of flooding and is therefore not expected to have an effect on flood risk areas. Therefore, no effect is likely to occur on this objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                       | --       | The site covers a large area (36ha) and is within grade 2 agricultural land and could therefore have a significant negative effect on protecting or enhancing soil/land quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality. | -        | The site is not within 1km of an AQMA but is more than 1km from the strategic highway network. Traffic associated with the site is therefore likely to travel further along local roads. The site is therefore expected to have a minor negative impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                  |

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                        | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                            | ?        | The site is not within a source protection zone but the majority of the site overlies a Principal aquifer which may provide a high level of water storage and support water supply and/or river base flow on a strategic scale. Additionally a small area in the north lies above a Secondary A aquifer. However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage.                                                                                                                          |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels | -        | This site is more than 1km from the strategic highway network and as traffic associated with the site is therefore likely to travel further along local roads, there could be a minor negative effect on reducing the impacts of lorry traffic on the environment and communities. Furthermore, the GCC site assessment notes that there are concerns in relation to highways access, as the B4228 to the north and south of the site is not deemed suitable due to its width and alignment, and alternative access to the A48 has not been identified but would be required if mitigation could not be provided along the B4228. This could lead to impacts on this objective as the access issues could cause negative effects for local communities and the environment. |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                        | ?        | At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

## Crushed Rock Cotswolds

### CRCW1 (A) Daglingworth

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | 0        | <p>The site is not within 100m of any sensitive receptors. The closest sensitive receptor is Oysterwell House located approximately 250m north east of the site. The closest settlement Itlay, is located approximately 500m to the south. Therefore, the site is expected to have no effects on the health of local residents and communities.</p> <p>In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -        | <p>The site is not within 100m of any sensitive receptors. The closest sensitive receptor is Oysterwell House located approximately 250m north east of the site. The closest settlement Itlay, is located approximately 500m to the south. Therefore, the site is expected to have no effects on the amenity of local communities.</p> <p>Future residential sites in the Cotswolds District are to be allocated for development as part of the emerging Cotswold District Local Plan that is yet to be consulted upon. Therefore, any future residential sites within 100m of this site which could result in landuse conflict are currently unknown.</p> <p>The site is located within 1km of the settlements Itlay and Bagendon and is proposed as an extension area to the existing Daglingworth Quarry, therefore, continuing crushed rock extraction activity in this area could have a minor negative cumulative effect on the amenity of the local community due to the potential noise and vibration associated with the mineral extraction operations. Noise and vibration effects may be more likely as the site would work crushed rock which would require blasting prior to excavation. However, the extent of these effects is very dependent on the scale of the operations and type of activities undertaken within the site as well as any potential mitigation measures proposed, which would be assessed at the planning application stage. While there may be some unavoidable short term effects due to noisy activities,</p> |

| SA Objective and Sub Questions                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                                                                                                                                                                        |          | it is assumed that mineral extraction at any of the potential sites will be well operated and that mitigation measures implemented should be sufficient to avoid any potential long term amenity effects.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                               | 0        | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that own them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant. |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | 0        | The site is not within an aerodrome safeguarding area and is therefore not expected to have an effect on this objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                                   |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | 0        | High Tun Farm KWS, Itlay KWS, and Stancombe Grove & Oysterwell Wood KWS are within 250m of the site. There are also other Key Wildlife Sites within 1km of the site, such as Bagendon Grove & Oysterwell Wood KWS, Merchants Downs KWS, and Daglingworth & Snakes Groves KWS. However, the GCC site assessment notes that no notable habitats or species are recorded on the site and while High Tun Farm KWS is close it is on the other side of the A417 dual carriageway and unlikely to be affected. Therefore, extraction at this site is unlikely to affect biodiversity.                                                                                                                                                                                                                            |



| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | --?      | <p>The site is located within the Cotswolds AONB and could therefore have a significant negative effect on this asset. However, the effect on the landscape would be uncertain as a more detailed assessment would be required once proposals are known at the planning application stage.</p> <p>The GCC assessment notes that as the whole Preferred Area (as designated in the GCC Minerals Local Plan, 2003) lies within the AONB, mineral operators are required to undertake a full assessment of the impact of mineral working through the extension of mineral working. Similar bunding and tree planting which is present at the existing quarry will be required to mitigate any impact in the Preferred Area. Subject to taking account of the archaeological interest present, operators should undertake landscaping and extensive planting well in advance of mineral extraction in order to mitigate likely landscape impact which could result from extension of the quarry into the Preferred Area.</p> <p>The GCC assessment also notes that the site lies within the AONB. While the existence of the AONB designation is a significant disadvantage the question of whether an allocation should contribute to be retained in the revised plan remains with whichever allocations should be made in the Cotswolds resource area. The emerging GCC spatial strategy suggests that it is appropriate and sustainable to make provision in the Cotswold resource area to meet local provision. Although providing for aggregates the quarry provides for other construction products that contribute to the local vernacular and character of the Cotswolds AONB. Given that the MLP 2003 was looking to limit significant mineral working to 2 sites, there are no other non AONB sources of Cotswold limestone available to maintain a contribution.</p> |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +?       | <p>The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | -        | <p>The PRoW bridleway BDH/3/2 runs along the southern boundary of the site. The GCC PRoW Team identify that this path would have to be diverted, although the GCC Minerals Local Plan (2003) criteria anticipated the PRoW remaining due to use of a tunnel to access the preferred area. Furthermore, GCC PRoW Team state that mineral</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| SA Objective and Sub Questions                                                                   | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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|                                                                                                  |          | <p>developments could well offer opportunity of enhancement but at this stage and without checking on the ground or consulting the parishes it is too early to be exact.</p> <p>Therefore, the site could have minor negative effects on recreation activities as the PRoW might be out of use while diverted, and minerals extraction at the site could make nearby recreational assets less attractive for users.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                             | -?       | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> <p>The site is located within 500m of Daglingworth Quarry Regionally Important Geological Site. Therefore, the site could have a minor negative effect on this objective. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting. | --?      | <p>The eastern boundary of the site is within 1km of Bagendon Conservation Area and Bagendon House Listed Building (Grade II) which is located within it. Additionally Duntisbourne Rouse/Middle Conservation Area and Daglingworth Conservation Area, and some listed buildings located within them are located just within 1km of the west and south west of the site respectively. Furthermore, the GCC assessment notes that advice given in 1998 in connection with the previous Minerals Local Plan identified the site of a possible Bronze Age barrow, and an earthwork bordering the south eastern boundary of the site which forms a part of the late Iron Age-early Roman settlement of Bagendon. The latter is of national importance and parts of the complex are a scheduled monument. The possible presence of other features contemporary with Bagendon was raised. It was recommended that the linear earthwork was excluded from the extraction area, and that the rest of the site should be assessed/evaluated. Therefore, the site could have a significant negative effect on the setting of these assets, however, the effects would be uncertain as a more detailed assessment would be required once proposals are known.</p> <p>GCC state that archaeological assessment/evaluation should be undertaken to establish the full range of archaeological interest in this site. The linear earthwork and any other features that are associated with the Bagendon settlement should be preserved; attention needs also to be given to their setting. Also that archaeological excavation of</p> |

| SA Objective and Sub Questions                                                                                                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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|                                                                                                                                                                                                                                                        |          | other identified heritage assets may be required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                                                         | 0        | The site is within flood zone 1 which has a low probability of flooding and is therefore not expected to have an effect on flood risk areas. Therefore, no effect is likely to occur on this objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                                                     | -        | The site covers a medium area (17ha) and is within grade 3 agricultural land and could therefore have a minor negative effect on protecting or enhancing soil/land quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                               | -        | The site is adjacent to the A417 but is not within 1km of an AQMA; therefore the site is expected to have a negligible impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                             | -?       | <p>The site is within source protection zones 1, 2 and 3. The site also lies above a principal aquifer which may provide a high level of water storage and support water supply and/or river base flow on a strategic scale.</p> <p>Furthermore, the GCC Minerals Local Plan (2003) states that the site is located on a major aquifer and groundwater flow is likely to be rapid as a consequence of the fissured nature of the limestone. Spring flow is common, as is the tendency for streams to lose water to ground in certain sections. In addition, Thames Water's Baunton public water supply boreholes are a few kilometres from the site and must be safeguarded in terms of maintaining groundwater levels and subsequent spring flows to the River Churn. The geology is also complex, with faulting and spring flow a problem.</p> <p>Therefore the site has the potential to have a minor negative effect on this objective. However, this effect would be uncertain as it would be very dependent on the exact nature, working and proposed design of the site.</p> |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing | +?       | This site is adjacent to the A417 and could therefore have a minor positive effect on reducing the impacts of lorry traffic on the environment and communities, as traffic associated with the site should not have to travel far on local roads. Furthermore, the GCC assessment notes that the A417 was the preferred route for lorry traffic, and that it is anticipated that the site would only have potential as an extension to the existing site at Daglingworth using the current access. This may help reduce impacts of lorry traffic on the environment and communities. However, the effects would be                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| SA Objective and Sub Questions                                 | SA Score | Justification                                                                                                                                                                                                                                                                |
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| d) the use of sustainable alternative fuels                    |          | uncertain as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage.                                                                                                                |
| 18. To reduce contributions to and to adapt to Climate Change. | ?        | At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage. |

## CRCW2 (A) Huntsmans

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | 0        | <p>The site is not within 100m of any sensitive receptors. The closest sensitive receptor is Nosehill Farm located approximately 250m to the east of the site and Cotswold Farm Park located approximately 300m north of the site. The nearest settlement is Barton, located over 1km to the west of the site. Therefore, the site is expected to have no effects on the health of local residents and communities.</p> <p>In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.</p>                                                                                                                                                                                                                                                                                |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | 0        | <p>The site is not within 100m of any sensitive receptors. The closest sensitive receptor is Nosehill Farm located approximately 250m to the east of the site and Cotswold Farm Park located approximately 300m north of the site. The nearest settlement is Barton, located over 1km to the west of the site. Therefore, the site is expected to no effects on the amenity of local communities.</p> <p>Future residential sites in the Cotswolds District are to be allocated for development as part of the emerging Cotswold District Local Plan that has yet to be consulted upon. Therefore, any future residential sites within 100m of this site which could result in landuse conflict are currently unknown.</p> <p>Furthermore, as the site is adjacent to an existing mineral site but is over 100m from sensitive receptors, and over 1km from the nearest settlements it is not expected to have a cumulative effect on the local community.</p> |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                                                  | 0        | <p>No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that own them.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                                             | +        | <p>All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire</p>                                                                                                                                                                                                                                                                                                                                                                                                                    |

| SA Objective and Sub Questions                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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|                                                                                                                                                                        |          | economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | 0        | The site is not within an aerodrome safeguarding area and is therefore not expected to have an effect on this objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | +        | The western boundary of the site is adjacent to the Barton Bushes SSSI and is within 1km of Lark Wood SSSI. The site is also located within 1km of three Key Wildlife Sites: Barton Valley; Lark Wood; and Devonport Quarries. However, the GCC site assessment notes that impacts on the nearby SSSIs are unlikely, and there is the potential for this site to provide some biodiversity enhancement tying into the surrounding restoration scheme for the recently consented Tinkers Barn Extension, which over half of this arable/pasture site is within. Mitigation measures for protected species have been agreed as has a biodiversity strategy to include translocation and creation of calcareous grassland (2ha) which will occur next to Barton Bushes SSSI and contribute to the adjacent Barton SNA. New hedgerows are also planned. Overall, the GCC site assessment considers the impact on biodiversity could be potentially neutral or positive, therefore, a minor positive effect is expected on this objective. |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                  | --?      | <p>The site is located within the Cotswolds AONB and could therefore have a significant negative effect on this asset. However, the effect on the landscape would be uncertain as a more detailed assessment would be required once proposals are known at the planning application stage.</p> <p>The GCC assessment notes that while the existence of the AONB designation is a significant disadvantage the question of whether an allocation should contribute to be retained in the revised plan remains with whichever allocations should be made in the Cotswolds resource area. The emerging GCC spatial strategy suggests that it is appropriate and sustainable to make provision in the Cotswold resource area to meet local provision. Although providing for aggregates the quarry provides for other</p>                                                                                                                                                                                                                 |

| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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|                                                                                                                                                                                                                    |          | construction products that contribute to the local vernacular and character of the Cotswolds AONB. Given that the MLP 2003 was looking to limit significant mineral working to 2 sites, there are no other non AONB sources of Cotswold limestone available to maintain a contribution.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | ++?      | The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | -        | The PRow footpath HTG/28/1 is located within 250m of the north boundary of the site and could therefore have a minor negative effect on recreation activities by making the footpath less attractive for users.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | -?       | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> <p>The site is more than 500m from any Regionally Important Geological Site but the eastern boundary of the site is adjacent to Huntsman's Quarry SSSI (a national site of geological interest). Therefore, the site could have a minor negative effect on this objective. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the site, which would not be known until the planning application stage.</p> |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                   | --?      | The site has a bowl barrow (part of the Bemborough Farm round barrow cemetery) designated as a Scheduled Ancient Monument within the site and three more located within 100m of the northern, western and eastern boundaries of the site. The Summerhill prehistoric site which is designated as a Scheduled Ancient Monument is located within 1km of the southern boundary. Therefore, the site could have a significant negative effect on the setting of these assets, however, the effects would be uncertain as a more detailed assessment would be required once proposals are known.                                                                                                                                                                                                                                                                                       |

| SA Objective and Sub Questions                                                                                                                                             | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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|                                                                                                                                                                            |          | Furthermore the GCC assessment notes that the site is situated within a landscape with a high density of archaeological sites of prehistoric and Roman date, some of which are designated as scheduled monuments. The GCC assessment also notes that the barrow cemetery located within the site should be excluded from the site allocation, and appropriate consideration given to the setting of this monument in determining the limits of extraction and the subsequent restoration of the land. Assessment/evaluation of the parts of Area A not yet evaluated will be necessary to determine whether there are any other parts that need to be preserved or excavated.                                                                                                                                                                                                                                                                                                                       |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                             | 0        | The site is within flood zone 1 which has a low probability of flooding and is therefore not expected to have an effect on flood risk areas. Therefore, no effect is likely to occur on this objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                         | -        | The site covers a large area (55ha) and is within grade 3 agricultural land and could therefore have a minor negative effect on protecting or enhancing soil/land quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                   | -        | The site is not within 1km of an AQMA but is more than 1km from the strategic highway network. Traffic associated with the site is therefore likely to travel further along local roads. The site is therefore expected to have a minor negative impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply. | ?        | <p>The site is not within a source protection zone but does overlay a principal aquifer which may provide a high level of water storage and support water supply and/or river base flow on a strategic scale. The GCC assessment notes that the GCC Minerals Local Plan (2003) hydrological comments outlined that the site is located on a major aquifer and groundwater flow is likely to be rapid as a consequence of the fissured nature of the limestone. Spring flow is also common, as is the tendency for streams to lose water to ground in certain sections. The geology is also complex with faulting and spring flow is a problem.</p> <p>However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage.</p> |
| 17. To reduce the adverse impacts of lorry traffic on the environment and                                                                                                  | -        | This site is more than 1km from the strategic highway network and as traffic associated                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |



| SA Objective and Sub Questions                                                                                                                                                                                              | SA Score | Justification                                                                                                                                                                                                                                                                |
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| communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels |          | with the site is therefore likely to travel further along local roads, there could be a minor negative effect on reducing the impacts of lorry traffic on the environment and communities.                                                                                   |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                              | ?        | At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage. |

## CRCW2 (B) Huntsmans

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | -?       | <p>The south west corner of the site is within 100m of Nosehill Farm and the south east corner is within 100m of Chalkhill Farm. The nearest settlement is Barton, located over 1km away to the west of the site. Therefore, the site could have a minor negative effect on health due to the potential for dust (PM10) to have a negative effect on the health of local residents and communities within close proximity to the site. However, this effect is uncertain, as the extent to which dust affects the nearby residents and settlement will depend on local circumstances such as the topography, nature of the landscape and the respective location of the site, Nosehill Farm and Chalkhill Farm in relation to the prevailing wind direction. In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -        | <p>The south west corner of the site is within 100m of Nosehill Farm and the south east corner is within 100m of Chalkhill Farm. The nearest settlement is Barton, located over 1km away to the west of the site. Therefore, the site could have a minor negative effect on amenity for the nearby residents and settlement due to the potential noise and vibration associated with the mineral extraction operations. Noise and vibration effects may be more likely as the site would work crushed rock which would require blasting prior to excavation. However, the extent of these effects is very dependent on the scale of the operations and type of activities undertaken within the site as well as any potential mitigation measures proposed, which would be assessed at the planning application stage. While there may be some unavoidable short term effects due to noisy activities, it is assumed that mineral extraction at any of the potential sites will be well operated and that mitigation measures implemented should be sufficient to avoid any potential long term amenity effects.</p> <p>Future residential sites in the Cotswolds District are to be allocated for development as part of the emerging Cotswold District Local Plan that has yet to be consulted upon . Therefore, any future residential sites within 100m of this site which could result in landuse conflict are currently unknown.</p> <p>There are no settlements within 1km of the site and therefore the site is not expected to have a cumulative effect on the amenity of the local community.</p> |

| SA Objective and Sub Questions                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                               | 0        | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that own them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant.                               |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | 0        | The site is not within an aerodrome safeguarding area and is therefore not expected to have an effect on this objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | ++?      | The site is located within 1km of two Key Wildlife Sites: Devonport Quarries; and Slatepit Coppice. The GCC site assessment notes that there will be no impacts on any SSSI or KWS. Additionally corn bunting (non S41 species) has been recorded on site and brown hare may occur and perhaps Perfoliate Pennycress. If the site is restored with biodiversity gains, which is possible, it would make a contribution to the adjacent Brockhill B SNA. Therefore, as the GCC site assessment considers the overall impact on biodiversity is potentially uncertain or positive, a minor positive effect is predicted for this objective. However, these effects would be uncertain as the potential for effects will depend on the exact nature and design of new sites, which would not be known until the planning application stage. |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                  | --?      | The site is located within the Cotswolds AONB and could therefore have a significant negative effect on this asset. However, the effect on the landscape would be uncertain as a more detailed assessment would be required once proposals are known at the                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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|                                                                                                                                                                                                                    |          | <p>planning application stage.</p> <p>The GCC assessment notes that while the existence of the AONB designation is a significant disadvantage the question of whether an allocation should contribute to be retained in the revised plan remains with whichever allocations should be made in the Cotswolds resource area. The emerging GCC spatial strategy suggests that it is appropriate and sustainable to make provision in the Cotswold resource area to meet local provision. Although providing for aggregates the quarry provides for other construction products that contribute to the local vernacular and character of the Cotswolds AONB. Given that the MLP 2003 was looking to limit significant mineral working to 2 sites, there are no other non AONB sources of Cotswold limestone available to maintain a contribution.</p>                        |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | <p>The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | -        | <p>The PRoW footpath HTG/33/1 runs through the site, west to east. The GCC PRoW Team has identified that a diversion would be required for footpath FSB/138/1. Therefore, the site could have minor negative effects on recreation activities as the PRoW might be out of use while diverted, and minerals extraction at the site could make nearby recreational assets less attractive for users.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | -        | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> <p>The southern boundary of the site is within 100m of the Huntsman's Quarry Regionally Important Geological Site and Huntsman's Quarry SSSI (a national site of geological interest). Therefore, the site could have a minor negative effect on this objective. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the site, which would not be known until the planning application stage.</p> |

| SA Objective and Sub Questions                                                                                                                                             | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                           | -?       | <p>The north west corner of the site is within 100m of a deserted medieval farmstead and associated earthworks, which is designated as a Scheduled Ancient Monument. The north west corner is also within 1km of four separate bowl barrows which are all designated as Scheduled Ancient Monuments. The south east corner of the site is also within 300m of the Keeper's Lodge Listed Building (Grade II). Additionally, the western boundary is within 1km of two separate barrows which are both designated as Scheduled Ancient Monuments. Therefore, the site could have a minor negative effect on the setting of these assets, however, the effects would be uncertain as a more detailed assessment would be required once proposals are known.</p> <p>Furthermore the GCC assessment notes that the site is situated within a landscape with a high density of archaeological sites of prehistoric and Roman date, some of which are designated as scheduled monuments. The GCC assessment also notes that assessment/evaluation should be undertaken to determine the extent of the archaeological interest in this site, with particular reference to the possibility that the adjacent designated sites to the north extend into this area. Consideration will need to be given to the setting of the adjacent monuments.</p> |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                             | 0        | The site is within flood zone 1 which has a low probability of flooding and is therefore not expected to have an effect on flood risk areas. Therefore, no effect is likely to occur on this objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                         | -        | The site covers a medium area (13ha) and is within grade 3 agricultural land and could therefore have a minor negative effect on protecting or enhancing soil/land quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                   | -        | The site is not within 1km of an AQMA but is more than 1km from the strategic highway network. Traffic associated with the site is therefore likely to travel further along local roads. The site is therefore expected to have a minor negative impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply. | ?        | The site is not within a source protection zone but does overlay a principal aquifer which may provide a high level of water storage and support water supply and/or river base flow on a strategic scale. The GCC assessment notes that the GCC Minerals Local Plan (2003) hydrological comments outlined that the site is located on a major aquifer and groundwater flow is likely to be rapid as a consequence of the fissured nature of the limestone. Spring flow is also common, as is the tendency for streams to lose water                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                                                                                                | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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|                                                                                                                                                                                                                                                                                                                                                                               |          | <p>to ground in certain sections. The geology is also complex with faulting and spring flow is a problem.</p> <p>However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage.</p> |
| <p>17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:</p> <ul style="list-style-type: none"> <li>a) reducing the need to travel</li> <li>b) promoting more sustainable means of transport e.g. by rail or water</li> <li>c) sensitive lorry routing</li> <li>d) the use of sustainable alternative fuels</li> </ul> | -        | <p>This site is more than 1km from the strategic highway network and as traffic associated with the site is therefore likely to travel further along local roads, there could be a minor negative effect on reducing the impacts of lorry traffic on the environment and communities.</p>                                                                                                                                                                      |
| <p>18. To reduce contributions to and to adapt to Climate Change.</p>                                                                                                                                                                                                                                                                                                         | ?        | <p>At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage.</p>                                                                                                                                                                            |

## CRCW2 (C) Huntsmans

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | -?       | <p>The south east corner of the site is within 100m of Huntsmans House and Huntsmans Cottage. The nearest settlement is Barton, located over 1km away to the west of the site. Therefore, the site could have a minor negative effect on health due to the potential for dust (PM10) to have a negative effect on the health of local residents and communities within close proximity to the site. However, this effect is uncertain, as the extent to which dust affects the nearby residents and settlement will depend on local circumstances such as the topography, nature of the landscape and the respective location of the site, Huntsmans House and Huntsmans Cottage in relation to the prevailing wind direction. In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -        | <p>The south east corner of the site is within 100m of Huntsmans House and Huntsmans Cottage. The nearest settlement is Barton, located over 1km away to the west of the site. Therefore, the site could have a minor negative effect on amenity for the nearby residents and settlement due to the potential noise and vibration associated with the mineral extraction operations. Noise and vibration effects may be more likely as the site would work crushed rock which would require blasting prior to excavation. However, the extent of these effects is very dependent on the scale of the operations and type of activities undertaken within the site as well as any potential mitigation measures proposed, which would be assessed at the planning application stage. While there may be some unavoidable short term effects due to noisy activities, it is assumed that mineral extraction at any of the potential sites will be well operated and that mitigation measures implemented should be sufficient to avoid any potential long term amenity effects.</p> <p>Future residential sites in the Cotswolds District are to be allocated for development as part of the emerging Cotswold District Local Plan that has yet to be consulted upon . Therefore, any future residential sites within 100m of this site which could result in landuse conflict are currently unknown.</p> <p>There are no settlements within 1km of the site and therefore the site is not expected</p> |

| SA Objective and Sub Questions                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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|                                                                                                                                                                        |          | to have a cumulative effect on the amenity of the local community.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                               | 0        | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that own them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant.                                                                                                                                                                                                                                              |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | 0        | The site is not within an aerodrome safeguarding area and is therefore not expected to have an effect on this objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | +        | <p>, The northern boundary of the site is within 800m of Barton Bushes SSSI. The GCC site assessment considers that the site is likely to be too distant to have an impact on the SSSI especially considering the recently consented extension to Tinker's Barn (Parcel A) includes mitigation measures to include translocation and creation of calcareous grassland (2ha) next to Barton Bushes SSSI to enhance it. The site is also located within 1km of two Key Wildlife Sites: Warren Beds; and Barton Valley.</p> <p>The GCC site assessment notes that no confirmed notable species are recorded on site, and as the site is adjacent to Brockhill B SNA a useful contribution could be made through a restoration scheme including calcareous grassland creation. Therefore, the GCC site assessment considers the overall impact on biodiversity is potentially uncertain or positive, and a minor positive effect is predicted for this objective. However, these effects would be uncertain as they will depend on the exact nature and</p> |



| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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|                                                                                                                                                                                                                    |          | design of new sites, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | --?      | <p>The site is located within the Cotswolds AONB and could therefore have a significant negative effect on this asset. However, the effect on the landscape would be uncertain as a more detailed assessment would be required once proposals are known at the planning application stage.</p> <p>The GCC assessment notes that while the existence of the AONB designation is a significant disadvantage the question of whether an allocation should contribute to be retained in the revised plan remains with whichever allocations should be made in the Cotswolds resource area. The emerging GCC spatial strategy suggests that it is appropriate and sustainable to make provision in the Cotswold resource area to meet local provision. Although providing for aggregates the quarry provides for other construction products that contribute to the local vernacular and character of the Cotswolds AONB. Given that the MLP 2003 was looking to limit significant mineral working to 2 sites, there are no other non AONB sources of Cotswold limestone available to maintain a contribution.</p> |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +?       | The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | -        | The PRow footpath HNA/19/1 runs along the eastern boundary of the site and could therefore have a minor negative effect on recreation activities by making the footpath less attractive for users.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | -?       | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> <p>The north boundary of the site is within 500m of Huntsman's Quarry SSSI (a national site of geological interest) and the southern boundary is within 500m of Grange Hill</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| SA Objective and Sub Questions                                                                                                                                             | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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|                                                                                                                                                                            |          | Quarry Regionally Important Geological Site. Therefore, the site could have a minor negative effect on this objective. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the site, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                                                      |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                           | -?       | <p>The southern boundary is within 200m of Summerhill prehistoric site which is designated as a Scheduled Ancient Monument. The south east corner of the site is also within 500m of Bowl barrow known as 'Salter's Pool round barrow', which is designated as a Scheduled Ancient Monument. Therefore, the site could have a minor negative effect on the setting of these assets, however, the effects would be uncertain as a more detailed assessment would be required once proposals are known.</p> <p>Furthermore the GCC assessment notes that some assessment and evaluation is needed at this site.</p> |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                             | 0        | The site is within flood zone 1 which has a low probability of flooding and is therefore not expected to have an effect on flood risk areas. Therefore, no effect is likely to occur on this objective.                                                                                                                                                                                                                                                                                                                                                                                                           |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                         | -        | The site covers a large area (39ha) and is within grade 3 agricultural land and could therefore have a minor negative effect on protecting or enhancing soil/land quality.                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                   | -        | The site is not within 1km of an AQMA but is more than 1km from the strategic highway network. Traffic associated with the site is therefore likely to travel further along local roads. The site is therefore expected to have a minor negative impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.                                                                   |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply. | ?        | <p>The site is not within a source protection zone but does overlay a principal aquifer which may provide a high level of water storage and support water supply and/or river base flow on a strategic scale.</p> <p>However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage.</p>                                                |

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                                                                                                | SA Score | Justification                                                                                                                                                                                                                                                                             |
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| <p>17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:</p> <ul style="list-style-type: none"> <li>a) reducing the need to travel</li> <li>b) promoting more sustainable means of transport e.g. by rail or water</li> <li>c) sensitive lorry routing</li> <li>d) the use of sustainable alternative fuels</li> </ul> | -        | <p>This site is more than 1km from the strategic highway network and as traffic associated with the site is therefore likely to travel further along local roads, there could be a minor negative effect on reducing the impacts of lorry traffic on the environment and communities.</p> |
| <p>18. To reduce contributions to and to adapt to Climate Change.</p>                                                                                                                                                                                                                                                                                                         | ?        | <p>At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage.</p>       |

### CRCW3 (A) Three Gates

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | -?       | The south east corner of the site is within 100m of Ford Manor. The nearest settlement is Ford, located within 100m of the south east corner. Therefore, the site could have a minor negative effect on health due to the potential for dust (PM10) to have a negative effect on the health of local residents and communities within close proximity to the site. However, this effect is uncertain, as the extent to which dust affects the nearby residents and settlement will depend on local circumstances such as the topography, nature of the landscape and the respective location of the site, Ford Manor and Ford in relation to the prevailing wind direction. In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -        | <p>The south east corner of the site is within 100m of Ford Manor. The nearest settlement is Ford, located within 100m of the south east corner. Therefore, the site could have a minor negative effect on amenity for the nearby residents and settlement due to the potential noise and vibration associated with the mineral extraction operations. Noise and vibration effects may be more likely as the site would work crushed rock which would require blasting prior to excavation. However, the extent of these effects is very dependent on the scale of the operations and type of activities undertaken within the site as well as any potential mitigation measures proposed, which would be assessed at the planning application stage. While there may be some unavoidable short term effects due to noisy activities, it is assumed that mineral extraction at any of the potential sites will be well operated and that mitigation measures implemented should be sufficient to avoid any potential long term amenity effects.</p> <p>Future residential sites in the Cotswolds District are to be allocated for development as part of the emerging Cotswold District Local Plan that has yet to be consulted upon. Therefore, any future residential sites within 100m of this site which could result in landuse conflict are currently unknown.</p> <p>The site is within 1km of the settlement, Ford, and is proposed as an extension area to Three Gates Quarry which is currently active, therefore, resuming crushed rock extraction activity in this area could have a cumulative effect on the amenity of the</p> |

| SA Objective and Sub Questions                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                                                                                                                                                                        |          | local community.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                               | 0        | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that own them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant. |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | 0        | The site is not within an aerodrome safeguarding area and is therefore not expected to have an effect on this objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                                   |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | ++?      | The site is within 1km of Cutsdean Marsh Key Wildlife Site. The GCC site assessment states that no impacts are likely to occur on any designated sites, and that some priority butterflies have been recorded in the general area but are unlikely to be totally dependent on the site, which is typical of much of surrounding area. Therefore, the GCC site assessment considers the overall impact on biodiversity is potentially uncertain or positive, and a minor positive effect is predicted for this objective. However, these effects would be uncertain as the potential for effects will depend on the exact nature and design of new sites, which would not be known until the planning application stage.                                                                                    |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                  | --?      | The site is located within the Cotswolds AONB and could therefore have a significant negative effect on this asset. However, the effect on the landscape would be uncertain as a more detailed assessment would be required once proposals are known at the                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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|                                                                                                                                                                                                                    |          | planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                                                                     |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | -        | <p>The PRoW footpath HTG/10/1 runs along the southern boundary of the site. GCC PRoW Team has identified that a diversion of this path would be required.</p> <p>GCC PRoW Team concluded that mineral developments could well offer opportunity of enhancement but at this stage and without checking on the ground or consulting the parishes it is too early to be exact.</p> <p>Therefore, the site could have minor negative effects on recreation activities as the PRoW might be out of use while diverted, and minerals extraction at the site could make nearby recreational assets less attractive for users.</p>                                                                                                                                                                            |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | -?       | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> <p>The western boundary of the site is within 100m of Cotswold Hills Quarries Regionally Important Geological Site. Therefore, the site could have a minor negative effect on this objective. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the site, which would not be known until the planning application stage.</p> |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                   | -?       | The southern boundary of the site is within 400m of two Scheduled Ancient Monuments (the Pinnock and Hyde round barrows). Ford Manor, a Grade II Listed Building, is located within 100m of the south east corner of the site. The south east corner of the site is within 150m of Ford Conservation Area and the listed buildings located within it. The eastern boundary of the site is also within 500m of Cutsdean Conservation Area and the listed buildings located within it. Therefore, the site could have a minor negative effect on the setting of these assets, however, the effects would be uncertain                                                                                                                                                                                   |

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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|                                                                                                                                                                                                                                                                                                                        |          | <p>as a more detailed assessment would be required once proposals are known.</p> <p>The GCC assessment notes that some assessment and evaluation is needed in order to enable the archaeological interest in this site to be determined.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                                                                                                                         | 0        | The site is within flood zone 1 which has a low probability of flooding and is therefore not expected to have an effect on flood risk areas. Therefore, no effect is likely to occur on this objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                                                                                                                     | -        | The site covers a medium area (8ha) and is within grade 3 agricultural land and could therefore have a minor negative effect on protecting or enhancing soil/land quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                                                                                               | -        | The site is not within 1km of an AQMA but is more than 1km from the strategic highway network. Traffic associated with the site is therefore likely to travel further along local roads. The site is therefore expected to have a minor negative impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.                                                                                                                                                                                             |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                                             | ?        | <p>Most of the site does not lie within a Source Protection Zone. However, the GCC assessment notes that a small area in the western portion of the site lies within SPZ3.</p> <p>The site overlies a principal aquifer which may provide a high level of water storage and support water supply and/or river base flow on a strategic scale.</p> <p>However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage.</p>                                          |
| <p>17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:</p> <p>a) reducing the need to travel</p> <p>b) promoting more sustainable means of transport e.g. by rail or water</p> <p>c) sensitive lorry routing</p> <p>d) the use of sustainable alternative</p> | -?       | This site is more than 1km from the strategic highway network and as traffic associated with the site is therefore likely to travel further along local roads, there could be a minor negative effect on reducing the impacts of lorry traffic on the environment and communities. However, the GCC assessment notes that it is anticipated that the site would be a potential extension to the existing site which currently has no highways restrictions. This may help reduce adverse impacts of lorry traffic on the environment and communities, although this would be uncertain, as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage. |

| SA Objective and Sub Questions                                 | SA Score | Justification                                                                                                                                                                                                                                                                |
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| fuels                                                          |          |                                                                                                                                                                                                                                                                              |
| 18. To reduce contributions to and to adapt to Climate Change. | ?        | At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage. |



## CRCW4 (A) Oathill

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | 0        | <p>The site is not within 100m of any sensitive receptors. The closest sensitive receptor is Jackdaws Castle which is located within 700m of the northern boundary of the site, while the closest settlement, which is Temple Guiting, is within 850m of the south of the site. Therefore, the site is expected to have no effects on the health of local residents and communities.</p> <p>In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -        | <p>The site is not within 100m of any sensitive receptors. The closest sensitive receptor is Jackdaws Castle which is located within 700m of the northern boundary of the site, while the closest settlement, which is Temple Guiting, is within 850m of the south of the site. Therefore, the site is expected to have no effects on the amenity of local communities.</p> <p>Future residential sites in the Cotswolds District are to be allocated for development as part of the emerging Cotswold District Local Plan that has yet to be consulted upon. Therefore, any future residential sites within 100m of this site which could result in landuse conflict are currently unknown.</p> <p>The site is located within 1km of the settlement Temple Guiting and is proposed as an extension area to the existing Oathill Quarry, therefore, continuing crushed rock extraction activity in this area could have a minor negative cumulative effect on the amenity of the local community due to the potential noise and vibration associated with the mineral extraction operations. Noise and vibration effects may be more likely due to the excavator and mobile crushing unit used on site, although, the effects may be less than other crushed rock sites as this site produces predominantly non-aggregate minerals (e.g. building stone, walling stone and agricultural lime) and therefore does not require blasting prior to excavation. However, the extent of these effects is very dependent on the scale of the operations and type of activities undertaken within the site as well as any potential mitigation measures proposed, which would be assessed at the planning application stage. While there may be some unavoidable short term effects due to noisy activities, it is assumed that mineral extraction at any of the potential sites will be well operated and that mitigation measures implemented should</p> |

| SA Objective and Sub Questions                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                                                                                                                                                                        |          | be sufficient to avoid any potential long term amenity effects.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                               | 0        | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that own them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant. |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | 0        | The site is not within an aerodrome safeguarding area and is therefore not expected to have an effect on this objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                                   |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | -/+?     | The site has protected priority species (e.g. common pipistrelle and three orchid species) and Strategic Nature Areas (e.g. Rock Pool SNA), and priority habitats nearby. Leigh Wood Key Wildlife Site is also within 1km of the south of the site. The GCC site assessment notes that any biodiversity enhancement at the site (e.g. calcareous grassland with woodland/trees) would make a relevant contribution to biodiversity as the site is adjacent to Rock Pool SNA. Therefore, a mixed minor negative and positive effect is predicted for this objective. This effect is uncertain as it will depend on the exact nature and design of new sites, which would not be known until the planning application stage.                                                                                 |

| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | --?      | The site is located within the Cotswolds AONB and could therefore have a significant negative effect on this asset. However, the effect on the landscape would be uncertain as a more detailed assessment would be required once proposals are known at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +?       | The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | -        | The PRoW footpath HTG/26/2 begins/ends near adjacent to the eastern boundary of the site. Therefore, the site could have minor negative effect on recreation activities by making the footpath less attractive to users.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | -?       | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> <p>The western boundary of the site is within 100m of Oathill Quarry Regionally Important Geological Site, which is the existing site that this extension is proposed for. Therefore, the site could have a minor negative effect on this objective. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the site, which would not be known until the planning application stage.</p> <p>The GCC assessment notes that access to the upper levels of the quarry should be maintained and that geological sequences and certain quarry faces should be preserved.</p> |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                   | -?       | The south east corner of the site is within 800m of Bell Barrow and a Settlement Site, both designated as Scheduled Ancient Monuments. The north east corner of the site is within 600m of a Barn designated as a Grade II Listed Building, and the south west corner is within 1km of Temple Guiting Conservation Area. Therefore, the site could have a minor negative effect on the setting of these assets, however, the effects would be uncertain as a more detailed assessment would be required once proposals are                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                  | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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|                                                                                                                                                                                                                                                                                                 |          | known.<br><br>The GCC assessment notes that some assessment and evaluation is needed in order to enable the archaeological interest in this site to be determined.                                                                                                                                                                                                                                                                                                                                                                                                   |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                                                                                                  | 0        | The site is within flood zone 1 which has a low probability of flooding and is therefore not expected to have an effect on flood risk areas. Therefore, no effect is likely to occur on this objective.                                                                                                                                                                                                                                                                                                                                                              |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                                                                                              | -        | The site covers a medium area (15.5ha) and is within grade 3 agricultural land and could therefore have a minor negative effect on protecting or enhancing soil/land quality.                                                                                                                                                                                                                                                                                                                                                                                        |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                                                                        | -        | The site is not within 1km of an AQMA but is more than 1km from the strategic highway network. Traffic associated with the site is therefore likely to travel further along local roads. The site is therefore expected to have a minor negative impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.                      |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                      | ?        | The site is not within a source protection zone.<br><br>The site overlies a principal aquifer which may provide a high level of water storage and support water supply and/or river base flow on a strategic scale.<br><br>However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage. |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative | -        | This site is more than 1km from the strategic highway network and as traffic associated with the site is therefore likely to travel further along local roads, there could be a minor negative effect on reducing the impacts of lorry traffic on the environment and communities.                                                                                                                                                                                                                                                                                   |

| SA Objective and Sub Questions                                 | SA Score | Justification                                                                                                                                                                                                                                                                |
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| fuels                                                          |          |                                                                                                                                                                                                                                                                              |
| 18. To reduce contributions to and to adapt to Climate Change. | ?        | At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage. |

## Sand and Gravel Cotswold Water Park

### SGCW1 (A) Dryleaze Farm/Shorncote

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | 0        | <p>The site is not within 100m of any sensitive receptors. The closest sensitive receptor is Manor Farm located approximately 600m to the south west of the site boundary, while the closest settlement, which is Shorncote, is located over 600m to the south west of the site. Therefore, the site is expected to have no effects on the health of local residents and communities.</p> <p>In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -        | <p>The site is not within 100m of any sensitive receptors. The closest sensitive receptor is Manor Farm located approximately 600m to the south west of the site boundary, while the closest settlement, which is Shorncote, is located over 600m to the south west of the site. Therefore, the site is expected to have no effects on the amenity of local communities.</p> <p>Future residential sites in the Cotswolds District are to be allocated for development as part of the emerging Cotswold District Local Plan that has yet to be consulted upon. Therefore, any future residential sites within 100m of this site which could result in landuse conflict are currently unknown.</p> <p>The site is located within 1km of the settlement Shorncote and is proposed as an extension area to the existing Dryleaze Farm extension of Shorncote Quarry, therefore, continuing sand and gravel extraction activity in this area could have a minor negative cumulative effect on the amenity of the local community due to the potential noise and vibration associated with the mineral extraction operations. Noise and vibration effects may, however, be less likely as the site would work sand and gravel which would not require blasting prior to excavation like crushed rock. Furthermore, the extent of these effects is very dependent on the scale of the operations and type of activities undertaken within the site as well as any potential mitigation measures proposed, which would be assessed at the planning application stage. While there may be some unavoidable short term effects due to noisy activities, it is assumed that mineral</p> |

| SA Objective and Sub Questions                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                                                                                                                                                                        |          | extraction at any of the potential sites will be well operated and that mitigation measures implemented should be sufficient to avoid any potential long term amenity effects.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                               | 0        | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that own them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant.                                                                                 |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | -?       | The GCC assessment notes that the entire site lies within the safeguarding zone for RAF Fairford. Therefore, the site could have a minor negative effect on the safety of commercial or military aerodromes due to the potential for birds to provide a hazard to aircraft, especially as this site may be restored to a form of open water use as it is located close to the Cotswold Water Park. However, the effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. For example, the site may be restored to a dry after use due to being located within the RAF Fairford safeguarding zone, however, this could increase the risk of flooding as mentioned against SA Objective 13 below. |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | 0        | Protected and priority species have been recorded within 1km of the site, such as the great crested newt. There is also the Cotswold Water Park Key Wildlife Site located over 900m to the south of the site. However, the GCC assessment considers that while extraction might affect some of the species recorded nearby, it is such a small site in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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|                                                                                                                                                                                                                    |          | the middle of a much larger consented quarry, that it is unlikely to affect this objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | 0?       | The site is more than 1km away from any AONB and is therefore considered unlikely to have an effect on this asset. It is uncertain whether there would be effects on local landscape character, as impacts on the landscape will depend upon factors such as how prominent sites are in the landscape, the level of screening proposed, and the character of the surrounding landscape, which has not been assessed within the GCC assessment at this stage                                                                                                                                                                                      |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.                                                                                                                                                                                                                |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | 0        | No leisure or recreational facilities or open spaces, including PRow are affected by this site. Therefore, the site is not expected to have an effect on recreation assets.                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | 0        | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> <p>The site is more than 500m from two Regionally Important Geological Sites: Furzen Leaze Quarries and Shorncote Quarry. Therefore, the site is not expected to affect this objective.</p>                                        |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                   | -?       | <p>The south west corner of the site is within 1km of four listed buildings. The closest is Manor Farmhouse (Grade II), which is located approximately 670m away. Therefore, the site could have a minor negative effect on the setting of these assets, however, the effects would be uncertain as a more detailed assessment would be required once proposals are known.</p> <p>Furthermore the GCC assessment notes assessment and evaluation were carried out in 2002 and some undated archaeological features were found. These are likely to be of similar character to features on adjacent land, which included extensive remains of</p> |



| SA Objective and Sub Questions                                                                                                                                             | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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|                                                                                                                                                                            |          | archaeological sites of prehistoric and Roman date, many of which have now been excavated in advance of mineral extraction.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                             | 0        | <p>The site is within flood zones 2, 3a and 3b. However, as the site is a sand and gravel extraction site it is not expected to have an effect on flood risk areas, as sand and gravel workings are classed as water-compatible development and are potentially suitable for all flood zones including 3b, the functional floodplain. Although, if the site is restored to a dry after use due to being located within the RAF Fairford safeguarding zone, it could increase the risk of flooding. However, the type of restoration proposed and eventually developed on site will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.</p> <p>The GCC assessment notes that the GCC Minerals Local Plan (2003) hydrological comments outlined that investigations by the Environment Agency suggest that there could be an area of floodplain associated with the watercourse passing through the site which will require further investigation and protection. Additionally, ground and surface water monitoring schemes must be carried out at least two years prior to proposed extraction working, and after use must endure no flood risk to adjoining land or settlements. It is noted that these comments related to an area which was much greater in extent to that being considered for this site.</p> |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                         | -        | The site covers a small area (1.5ha) and is mostly within grade 2 agricultural land and could therefore have a minor negative effect on protecting or enhancing soil/land quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                   | -        | The site is not within 1km of an AQMA but is more than 1km from the strategic highway network. Traffic associated with the site is therefore likely to travel further along local roads. The site is therefore expected to have a minor negative impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply. | ?        | The site is not within source protection zone 1 but is within source protection zones 2 and 3. The majority of the site also overlies a Secondary A aquifer which may be capable of supporting water supplies at a local scale, and may form an important source of base flow to rivers. However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                                               | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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|                                                                                                                                                                                                                                                                                                                              |          | (mineral type, design, method of working etc.), which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <p>17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:</p> <p>a) reducing the need to travel</p> <p>b) promoting more sustainable means of transport e.g. by rail or water</p> <p>c) sensitive lorry routing</p> <p>d) the use of sustainable alternative fuels</p> | -?       | <p>This site is more than 1km from the strategic highway network and as traffic associated with the site is therefore likely to travel further along local roads, there could be a minor negative effect on reducing the impacts of lorry traffic on the environment and communities. However, the GCC assessment notes that if the site is taken forward as an extension to Shorncote Quarry, it is anticipated that there would be no increase in the current traffic flow in the area, which may help reduce the adverse impacts of lorry traffic on the environment and communities. However, this would be uncertain, as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage.</p> |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                                               | ?        | <p>At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

## SGCW2 (A) Cerney Wick

| SA Objective                                                                                                                                                                              | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | -?       | There are two properties located just within the southern boundary of the site (Elm Lea and Galegoes), in addition to two further properties that are located within 100m of the site boundary – Wickwater Farm (100m south) and The Lodge (50m southeast). The nearest settlement is Cerney Wick, located less than 600m to the northeast of the site. Therefore, the site could have a minor negative effect on health due to the potential for dust (PM10) to have a negative effect on the health of local residents and communities within close proximity to the site. However, this effect is uncertain, as the extent to which dust affects the nearby residents and settlement will depend on local circumstances such as the topography, nature of the landscape and the respective location of the site and sensitive receptors in relation to the prevailing wind direction. In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -        | <p>There are two properties located just within the southern boundary of the site (Elm Lea and Galegoes), in addition to two further properties that are located within 100m of the site boundary – Wickwater Farm (100m south) and The Lodge (50m southeast). The nearest settlement is Cerney Wick, located less than 600m to the northeast of the site. Therefore, the site could have a minor negative effect on amenity for the nearby residents and settlement due to the potential noise and vibration associated with the mineral extraction operations. Noise and vibration effects may be less likely at this site than a site for crushed rock as sand and gravel rarely require blasting prior to excavation. However, the extent of these effects is very dependent on the scale of the operations and type of activities undertaken within the site as well as any potential mitigation measures proposed, which would be assessed at the planning application stage. While there may be some unavoidable short term effects due to noisy activities, it is assumed that mineral extraction at any of the potential sites will be well operated and that mitigation measures implemented should be sufficient to avoid any potential long term amenity effects.</p> <p>Future residential sites in the Cotswolds District are to be allocated for development as part of the emerging Cotswold District Local Plan that has yet to be consulted upon. Therefore, any future residential sites within 100m of this site which could result in landuse conflict are currently unknown.</p> <p>The site is within 1km of Cerney Wick and is adjacent to existing mineral sites (Cerney Wick and Oaktree Fields), therefore, continuing sand and gravel extraction activity in this area could have a cumulative effect on the amenity of the local community.</p> |

| SA Objective                                                                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                               | 0        | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that own them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant.                                                                                                                                                  |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | -?       | The GCC assessment notes that the entire site lies within the safeguarding zone for RAF Fairford. Therefore, the site could have a minor negative effect on the safety of commercial or military aerodromes due to the potential for birds to provide a hazard to aircraft, especially as this site may be restored to a form of open water use as it is located close to the Cotswold Water Park. However, the effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. For example, the site may be restored to a dry after use due to being located within the RAF Fairford safeguarding zone, however, this could increase the risk of flooding as mentioned against SA Objective 13 below.                                                                  |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard mineral resources from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | -?       | Elmlea Meadows SSSI is located 745m to the south east and Cotswolds Water Park SSSI 865m to the north of the site. It is also within 1km of the Key Wildlife Sites at Cerney Wick Copse and Cotswolds Water Park, while North Meadow & Clattinger Farm SAC is 5.2km to the west. Therefore, the site could have a minor negative effect on this objective due to being within 1km of a nationally designated biodiversity site, however these effects would be uncertain as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage. In addition, the GCC site assessment notes that any development proposal will need to be screened to see if an appropriate assessment under the Habitats Regulations is required due to the potential for a likely significant effect on North Meadow & Clattinger Farm SAC either alone or in combination with other plans or |

| SA Objective                                                                                                                                                                                                       | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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|                                                                                                                                                                                                                    |          | projects.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | 0?       | The site is more than 1km away from any AONB and is therefore considered unlikely to have an effect on this asset. It is uncertain whether there would be effects on local landscape character, as impacts on the landscape will depend upon factors such as how prominent sites are in the landscape, the level of screening proposed, and the character of the surrounding landscape, which has not been assessed within the GCC assessment at this stage.                                                                                                                                                                                                                                                     |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                                |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | -        | The site includes the PRoW footpaths BSC 26/1 and 46/2 along its northeastern boundary. Additionally, the GCC PRoW Team has identified that a diversion would be required for footpaths BSC 25/1, 26/1. Therefore, the site could have minor negative effects on recreation activities as the PRoWs might be out of use while diverted, and minerals extraction at the site could make nearby recreational assets less attractive for users.                                                                                                                                                                                                                                                                     |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | 0        | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> <p>The site is more than 500m from any Regionally Important Geological Sites (the nearest is South Cerney Gravel Pit, 1.8km northwest). Therefore, the site is not expected to affect this objective.</p>                                                                                          |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                   | -?       | <p>The site is within 1km of ten Grade II listed buildings (one to the northwest and nine to the north east). The closest is Cerney Wick Farmhouse, which is located approximately 610m away. Therefore, the site could have a minor negative effect on the setting of these assets; however, the effects would be uncertain as a more detailed assessment would be required once proposals are known.</p> <p>Furthermore the GCC assessment notes that no designated or undesignated heritage assets are recorded on the site, but the site is adjacent to extensive remains of archaeological sites of prehistoric and Roman date, many of which have now been excavated in advance of mineral extraction.</p> |

| SA Objective                                                                                                                                                                          | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                        | 0        | <p>The southern boundary of this site is within flood zones 2, 3a and 3b. However, as the site is a sand and gravel extraction site, it is not expected to have an effect on flood risk areas, as sand and gravel workings are classed as water-compatible development and are potentially suitable for all flood zones including 3b, the functional floodplain. Although, if the site is restored to a dry after use due to being located within the RAF Fairford safeguarding zone, it could increase the risk of flooding. However, the type of restoration proposed and eventually developed on site will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.</p> <p>Also, the GCC assessment notes that the GCC Minerals Local Plan (2003) hydrological comments outlined that ground and surface water monitoring schemes must be carried out at least two years prior to proposed extraction working. It is noted that these comments related to an area which was much greater in extent to that being considered for this site.</p> |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                    | -        | The site covers a medium area (16ha) and is mostly within grade 3 agricultural land, but with a large area in the north of the site within grade 2 agricultural land and could therefore have a minor negative effect on protecting or enhancing soil/land quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                              | -        | The site is not within 1km of an AQMA but is more than 1km from the strategic highway network. Traffic associated with the site is therefore likely to travel further along local roads. The site is therefore expected to have a minor negative impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.            | ?        | The site is not within source protection zone 1 but is within source protection zones 2 and 3. The majority of the site also overlies a Secondary A aquifer which may be capable of supporting water supplies at a local scale, and may form an important source of base flow to rivers. However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means | -?       | This site is more than 1km from the strategic highway network and as traffic associated with the site is therefore likely to travel further along local roads, there could be a minor negative effect on reducing the impacts of lorry traffic on the environment and communities. However, the GCC assessment notes that it is likely that the site would also be worked as an extension to the Cerney Wick Farm site with no change to overall output from the site. Therefore access and infrastructure arrangements are already approved, however, a transport assessment would still be required. This may help                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

| SA Objective                                                                                                    | SA Score | Justification                                                                                                                                                                                                                                                                |
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| of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels |          | reduce the adverse impacts of lorry traffic on the environment and communities. However, this would be uncertain, as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage.        |
| 18. To reduce contributions to and to adapt to Climate Change.                                                  | ?        | At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage. |

### SGCW3 (A) Horcott/Lady Lamb Farm

| SA Objective                                                                                                                                                                              | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | -?       | There is a property located at the centre of the site (Lady Lamb Farm), in addition to a further property located within 100m of the site boundary – Cherry Tree House (50m north). The nearest settlements are Fairford (540m northeast) and Meysey Hampton (810m west). Therefore, the site could have a minor negative effect on health due to the potential for dust (PM10) to have a negative effect on the health of local residents and communities within close proximity to the site. However, this effect is uncertain, as the extent to which dust affects the nearby residents and settlement will depend on local circumstances such as the topography, nature of the landscape and the respective location of the site and sensitive receptors in relation to the prevailing wind direction. In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -?       | <p>There is a property located at the centre of the site (Lady Lamb Farm), in addition to a further property located within 100m of the site boundary – Cherry Tree House (50m north). The nearest settlements are Fairford (540m northeast) and Meysey Hampton (810m west). Therefore, the site could have a minor negative effect on amenity for the nearby residents and settlement due to the potential noise and vibration associated with the mineral extraction operations. Noise and vibration effects may be less likely at this site than a site for crushed rock as sand and gravel rarely require blasting prior to excavation. However, the extent of these effects is very dependent on the scale of the operations and type of activities undertaken within the site as well as any potential mitigation measures proposed, which would be assessed at the planning application stage. While there may be some unavoidable short term effects due to noisy activities, it is assumed that mineral extraction at any of the potential sites will be well operated and that mitigation measures implemented should be sufficient to avoid any potential long term amenity effects.</p> <p>Future residential sites in the Cotswolds District are to be allocated for development as part of the emerging Cotswold District Local Plan that has yet to be consulted upon. Therefore, any future residential sites within 100m of this site which could result in landuse conflict are currently unknown.</p> <p>The site is within 1km of Fairford and Meysey Hampton, which are also within 1km of an existing mineral site (Horcott), therefore, continuing sand and gravel extraction activity in this area could have a cumulative effect on the amenity of the local community.</p> |



| SA Objective                                                                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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|                                                                                                                                                                        |          | The GCC assessment notes that the site is not associated with any current minerals operations and demand for material from this site would likely be to Swindon and the South via the A419. The route to this corridor is not obvious, and safe and suitable access will need to be identified. This may lead to effects on local communities, however, effects would be uncertain as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage. For example the site has frontage onto the A417, albeit a route through Fairford Town would be unsuitable due to restrictions.                                                                                                                                                                                                                                                                                       |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                               | 0        | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that own them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant.                                                                                                                                                  |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | -?       | The GCC assessment notes that the entire site lies within the safeguarding zone for RAF Fairford (Fairford Airfield lies 1.3km to the south). Therefore, the site could have a minor negative effect on the safety of commercial or military aerodromes due to the potential for birds to provide a hazard to aircraft, especially as this site may be restored to a form of open water use as it is located close to the Cotswold Water Park. However, the effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. For example, the site may be restored to a dry after use due to being located within the RAF Fairford safeguarding zone. This could increase the risk of flooding if the site was located within a flood risk area, which this site is not. |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard mineral resources from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| SA Objective                                                                                                                                                                                                       | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                                                               | +        | There are no internationally or nationally designated sites within 1km of the site and no locally designated sites are within 250m of the site. There is a Key Wildlife Site within 1km of the site (Cotswolds Water Park, 650m east). The GCC site assessment notes that given the large extent of the site and that it presently has little biodiversity interest it would be easy to achieve biodiversity gains on the site. Therefore, the GCC site assessment considers the overall impact on biodiversity is potentially uncertain or positive, and a minor positive effect is predicted for this objective. However, these effects would be uncertain as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage. |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | 0        | The site is more than 1km away from any AONB and is therefore considered unlikely to have an effect on this asset. It is uncertain whether there would be effects on local landscape character, as impacts on the landscape will depend upon factors such as how prominent sites are in the landscape, the level of screening proposed, and the character of the surrounding landscape, which has not been assessed within the GCC assessment at this stage.                                                                                                                                                                                                                                                                                                                                                     |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | -        | The site includes the PRoW footpath BFA/6/1 that crosses the eastern part of the site. The GCC PRoW Team has noted that this is a well walked path. Therefore, the site could have minor negative effects on recreation activities as the PRoW might be out of use while diverted, and minerals extraction at the site could make nearby recreational assets less attractive for users.                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | 0        | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> <p>The site is more than 500m from any Regionally Important Geological Sites (the nearest is Horcott Pit, 1.1km southeast). Therefore, the site is not expected to affect this objective.</p>                                                                                                                                                                                                      |
| 12. To protect conserve and enhance the historic environment, heritage                                                                                                                                             | -        | This site is located within 1km of Fairford Conservation Area (Meysey Hampton Conservation Area is 1.1km to the west), and two Scheduled Monuments (Hemingford                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| SA Objective                                                                                                                                                               | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| assets and their setting.                                                                                                                                                  |          | <p>Barrow and Fairford Saxon Cemetery). The site is also within 1km of 34 Grade II listed buildings, mainly located to the northeast at Fairford Conservation Area. The closest listed buildings are both at Claremont House (the Lodge, and the Gatepiers and Quadrant Entrance Wall), which is located approximately 265m east. Therefore, the site could have a minor negative effect on the setting of these assets; however, the effects would be uncertain as a more detailed assessment would be required once proposals are known.</p> <p>Furthermore the GCC assessment notes that numerous archaeological sites were identified on site, ranging in date from early prehistoric to Anglo-Saxon. The number of sites, their date range and therefore the intensity of the use of the area, led to it being characterised as of 'high archaeological potential' with some areas possibly meriting designation.</p> |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                             | 0        | As the site is a sand and gravel extraction site, it is not expected to have an effect on flood risk areas, as sand and gravel workings are classed as water-compatible development and are potentially suitable for all flood zones including 3b, the functional floodplain. In addition, the site is not within flood zones 2, 3a and 3b.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                         | -        | The site covers a large area (48ha) and is mostly within grade 3 agricultural land, and could therefore have a minor negative effect on protecting or enhancing soil/land quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                   | 0        | <p>The site is adjacent to the A417 that runs along the northern boundary of the site, and the increased road transport resulting from the site is likely to travel a shorter distance along local roads, and result in fewer localised air pollution issues that would otherwise occur from travelling more slowly on local roads.</p> <p>The site is not within 1km of an AQMA; therefore the site is expected to have a negligible impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.</p>                                                                                                                                                                                   |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply. | ?        | According to GCC, the site is not within source protection zone 1 but is within source protection zones 2 and 3. The majority of the site also overlies a Secondary A aquifer which may be capable of supporting water supplies at a local scale, and may form an important source of base flow to rivers. However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                       |

| SA Objective                                                                                                                                                                                                                                                                                                                                                                  | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| <p>17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:</p> <ul style="list-style-type: none"> <li>a) reducing the need to travel</li> <li>b) promoting more sustainable means of transport e.g. by rail or water</li> <li>c) sensitive lorry routing</li> <li>d) the use of sustainable alternative fuels</li> </ul> | +/-?     | <p>The site is adjacent to the A417 that runs along the northern boundary of the site, and could therefore have a minor positive effect on reducing the impacts of lorry traffic on the environment and communities as traffic associated with the site should not have to travel far on local roads. However, the GCC assessment notes that the site is not associated with any current minerals operations and demand for material from this site would likely be to Swindon and the South via the A419. The route to this corridor is not obvious, and safe and suitable access will need to be identified. This may lead to negative effects on local communities and the environment, however, effects would be uncertain as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage.</p> |
| <p>18. To reduce contributions to and to adapt to Climate Change.</p>                                                                                                                                                                                                                                                                                                         | ?        | <p>At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

### SGCW3 (B) Horcott/Lady Lamb Farm

| SA Objective                                                                                                                                                                              | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | -?       | There are two properties located within 100m of the site boundary – Rhymes Barn Farm (45m east) and Fairford Roof Tile Manufacturers (20m east). The nearest settlements are Fairford (700m northeast) and Dunfield (750m south). Therefore, the site could have a minor negative effect on health due to the potential for dust (PM10) to have a negative effect on the health of local residents and communities within close proximity to the site. However, this effect is uncertain, as the extent to which dust affects the nearby residents and settlement will depend on local circumstances such as the topography, nature of the landscape and the respective location of the site and sensitive receptors in relation to the prevailing wind direction. In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -        | <p>There are two properties located within 100m of the site boundary – Rhymes Barn Farm (45m east) and Fairford Roof Tile Manufacturers (20m east). The nearest settlements are Fairford (700m northeast) and Dunfield (750m south). Therefore, the site could have a minor negative effect on amenity for the nearby residents and settlement due to the potential noise and vibration associated with the mineral extraction operations. Noise and vibration effects may be less likely at this site than a site for crushed rock as sand and gravel rarely require blasting prior to excavation. However, the extent of these effects is very dependent on the scale of the operations and type of activities undertaken within the site as well as any potential mitigation measures proposed, which would be assessed at the planning application stage. While there may be some unavoidable short term effects due to noisy activities, it is assumed that mineral extraction at any of the potential sites will be well operated and that mitigation measures implemented should be sufficient to avoid any potential long term amenity effects.</p> <p>Future residential sites in the Cotswolds District are to be allocated for development as part of the emerging Cotswold District Local Plan that has yet to be consulted upon. Therefore, any future residential sites within 100m of this site which could result in landuse conflict are currently unknown.</p> <p>The site is within 1km of Fairford and Dunfield, which are also within 1km of the adjacent existing mineral site (Horcott), therefore, continuing sand and gravel extraction activity in this area could have a cumulative effect on the amenity of the local community.</p> |

| SA Objective                                                                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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|                                                                                                                                                                        |          | The GCC assessment notes that the site is not associated with any current mineral operations, and has limited access potential and would be accessed from an unclassified road with restrictions, and therefore unlikely to be suitable for mineral extraction. Access to this site could lead to effects on the amenity of local communities, however, effects would be uncertain as the potential for effects from minerals transport will depend on the exact nature and design of the site, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                           |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                               | 0        | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that own them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant.                               |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | -?       | The GCC assessment notes that the entire site lies within the safeguarding zone for RAF Fairford (Fairford Airfield lies 1.3km to the south). Therefore, the site could have a minor negative effect on the safety of commercial or military aerodromes due to the potential for birds to provide a hazard to aircraft, especially as this site may be restored to a form of open water use as it is located close to the Cotswold Water Park. However, the effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. For example, the site may be restored to a dry after use due to being located within the RAF Fairford safeguarding zone. |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard mineral resources from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                                               |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | +        | There are no internationally or nationally designated sites within 1km of the site and no locally designated sites are within 250m of the site, but the Cotswolds Water Park Key Wildlife Site is within 1km of the site (650m east). The GCC site assessment notes that                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| SA Objective                                                                                                                                                                                                       | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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|                                                                                                                                                                                                                    |          | the site is next to a consented minerals area and therefore has very limited biodiversity interest being arable land with a only few defunct hedgerows. If a restoration scheme to benefit wildlife were delivered on the site, it could make a useful addition to the existing minerals site that has been enhanced for biodiversity. Therefore, it is likely through the minerals planning process that some gains would accrue for biodiversity. As the GCC site assessment considers that there would be no adverse effects on biodiversity, and overall the site's impact on biodiversity could be potentially neutral or positive, this site is predicted to have minor positive effects on biodiversity. However, these effects would be uncertain as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage.. |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | 0?       | The site is more than 1km away from any AONB and is therefore considered unlikely to have an effect on this asset. It is uncertain whether there would be effects on local landscape character, as impacts on the landscape will depend upon factors such as how prominent sites are in the landscape, the level of screening proposed, and the character of the surrounding landscape, which has not been assessed within the GCC assessment at this stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | -        | The site is within 250m of PRoW footpaths BFA 27/1, 42/2 and 43/1 (to the west), and could lead to minor negative effect on recreation activities assets in the County by making the facilities less attractive for users.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | -?       | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> <p>The site appears to be within 500m of Horcott Pit Regionally Important Geological Site. Therefore, the site could have a minor negative effect on this objective. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p>                                                                                                                          |

| SA Objective                                                                                                                                                               | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                           | -?       | <p>This site is located within 1km of Fairford Conservation Area, and Hemingford Barrow Scheduled Monuments. The site is also within 1km of ten Grade II listed buildings, the closest of which are both at Claremont House (the Lodge, and the Gatepiers and Quadrant Entrance Wall), which is located approximately 265m east. Therefore, the site could have a minor negative effect on the setting of these assets; however, the effects would be uncertain as a more detailed assessment would be required once proposals are known.</p> <p>Furthermore the GCC assessment notes that numerous archaeological sites were identified on site, ranging in date from early prehistoric to Anglo-Saxon. The number of sites, their date range and therefore the intensity of the use of the area, led to it being characterised as of 'high archaeological potential' with some areas possibly meriting designation.</p> |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                             | 0        | As the site is a sand and gravel extraction site, it is not expected to have an effect on flood risk areas, as sand and gravel workings are classed as water-compatible development and are potentially suitable for all flood zones including 3b, the functional floodplain. In addition, the site is not within flood zones 2, 3a and 3b.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                         | --       | The site covers a large area (27.5ha) and is mostly within grade 2 agricultural land (with a large area of Grade 3 land in the west), and could therefore have a significant negative effect on protecting or enhancing soil/land quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                   | 0        | <p>This site is within 1km of the A417 (550m north) and the increased road transport resulting from the site is likely to travel a shorter distance along local roads, and result in fewer localised air pollution issues that would otherwise occur from travelling more slowly on local roads.</p> <p>The site is not within 1km of an AQMA; therefore the site is expected to have a negligible impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.</p>                                                                                                                                                                                                                     |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply. | ?        | According to GCC, the site is not within source protection zone 1 but is within source protection zones 2 and 3. The majority of the site also overlies a Secondary A aquifer which may be capable of supporting water supplies at a local scale, and may form an important source of base flow to rivers. However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                      |



| SA Objective                                                                                                                                                                                                                                                                                                                                                                  | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| <p>17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:</p> <ul style="list-style-type: none"> <li>a) reducing the need to travel</li> <li>b) promoting more sustainable means of transport e.g. by rail or water</li> <li>c) sensitive lorry routing</li> <li>d) the use of sustainable alternative fuels</li> </ul> | +/-?     | <p>This site is within 1km of the A417 (550m north) and could therefore have a minor positive effect on reducing the impacts of lorry traffic on the environment and communities as traffic associated with the site should not have to travel far on local roads. However, the GCC assessment notes that the site is not associated with any current mineral operations, and has limited access potential and would be accessed from an unclassified road with restrictions, and therefore unlikely to be suitable for mineral extraction. Access to this site could lead to effects on local communities and the environment, however, effects would be uncertain as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage.</p> |
| <p>18. To reduce contributions to and to adapt to Climate Change.</p>                                                                                                                                                                                                                                                                                                         | ?        | <p>At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

## SGCW4 (A) Kempsford/Whelford

| SA Objective                                                                                                                                                                              | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | 0        | <p>The site is not within 100m of any sensitive receptors. The closest sensitive receptors are properties within the settlement of Kempsford located 340m to the west of the site boundary. Therefore, the site is expected to have no effects on the health of local residents and communities.</p> <p>In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.</p>                                                                                                                                                                                                                                                                                                                                         |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -?       | <p>The site is not within 100m of any sensitive receptors. The closest sensitive receptors are properties within the settlement of Kempsford located 340m to the west of the site boundary. Therefore, the site is expected to have no effects on the amenity of local communities.</p> <p>Future residential sites in the Cotswolds District are to be allocated for development as part of the emerging Cotswold District Local Plan that has yet to be consulted upon. Therefore, any future residential sites within 100m of this site which could result in landuse conflict are currently unknown.</p> <p>However, as the site is within 1km of the settlement of Kempford, which is also within 1km of an existing mineral site (Kempsford/Manor Farm), continuing sand and gravel extraction activity in this area could have a cumulative effect on the amenity of the local community.</p> |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                                                  | 0        | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that own them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                                             | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant.                                                                                           |

| SA Objective                                                                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | -?       | The GCC assessment notes that the entire site lies within the safeguarding zone for RAF Fairford. Therefore, the site could have a minor negative effect on the safety of commercial or military aerodromes due to the potential for birds to provide a hazard to aircraft, especially as this site may be restored to a form of open water use as it is located close to the Cotswold Water Park. However, the effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. For example, the site may be restored to a dry after use due to being located within the RAF Fairford safeguarding zone, however, this could increase the risk of flooding as mentioned against SA Objective 13 below.                                                                                                                                                                                                                   |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard mineral resources from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | +        | The site has no internationally or nationally designated sites within 1km and no locally designated sites are within 250m of the site. According to the GCC site assessment, there is a Local Wildlife Site nearby (River Thames LWS in Wiltshire). Furthermore, the GCC site assessment notes that the site could make a useful contribution towards the Kempsford SNA which overlaps the site and this should be sought. Restoration, however, would have to take account of safeguarding aircraft using RAF Fairford, i.e. from the risk of bird strike. Therefore, as, the GCC site assessment considers that there would be no adverse effects and biodiversity some biodiversity benefits are likely to accrue in a restoration scheme, and overall the site's impact on biodiversity could be potentially uncertain or positive, this site is predicted to have minor positive effects on biodiversity. However, these effects would be uncertain as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage. |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                  | 0?       | The site is more than 1km away from any AONB and is therefore considered unlikely to have an effect on this asset. It is uncertain whether there would be effects on local landscape character, as impacts on the landscape will depend upon factors such as how prominent sites are in the landscape, the level of screening proposed, and the character of the surrounding landscape, which has not been assessed within the GCC assessment at this stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of                        | +        | The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

| SA Objective                                                                                      | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| biodiversity, and delivery of green infrastructure where possible.                                |          | the minerals site, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets. | -        | The site is within 250m of PRoW footpaths BKD 16/4, 17/1 and 18/2 (to the north), and could lead to minor negative effects on recreation activities and assets in the County by making the facilities less attractive for users.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                              | -?       | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> <p>The site is located within 500m of Barden Aggregates Pit Regionally Important Geological Site. Therefore, the site could have a minor negative effect on this objective. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p>                                                                                        |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.  | --?      | <p>This site is located within 1km of Kempsford Conservation Area, and Scheduled Monument sites near Manor Ham Barn. The site is also within 1km of 16 Grade II listed buildings, and one Grade I listed building (Church of St Mary the Virgin), which is located approximately 570m southwest. Therefore, the site could have a minor negative effect on the setting of these assets; however, the effects would be uncertain as a more detailed assessment would be required once proposals are known.</p> <p>Furthermore the GCC assessment notes that this site was excluded from the area for extraction following archaeological evaluation in 1998, as the evaluation identified the remains of at least one Roman masonry building, and it was agreed that this would be preserved. Therefore the negative effects expected on this SA objective could be significant.</p> |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.    | 0        | There is a section in the southeast of this site that is within flood zone 2. However, as the site is a sand and gravel extraction site, it is not expected to have an effect on flood risk areas, as sand and gravel workings are classed as water-compatible development and are potentially suitable for all flood zones including 3b, the functional floodplain. Although, if the site is restored to a dry after use due to being located within the RAF Fairford safeguarding zone, it could increase the risk of flooding. However, the type of restoration proposed and eventually developed on site will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.                                                                                                                                                |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                | -        | The site covers a small area (1ha) and is mostly within grade 3 agricultural land, with a small area of grade 1 (high quality) agricultural land, and could therefore have a minor negative effect on protecting or enhancing soil/land quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

| SA Objective                                                                                                                                                                                                                                                                                          | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                                                                              | -        | The site is not within 1km of an AQMA or the strategic highway network. Traffic associated with the site is therefore likely to travel further along local roads. The site is therefore expected to have a minor negative impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                     |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                            | ?        | According to GCC, the site is not within source protection zones 1, 2 or 3. GCC also states that the site also overlies a Secondary A aquifer which may be capable of supporting water supplies at a local scale, and may form an important source of base flow to rivers. However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                         |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels | -?       | This site is more than 1km from the strategic highway network and as traffic associated with the site is therefore likely to travel further along local roads, there could be a minor negative effect on reducing the impacts of lorry traffic on the environment and communities. However, the GCC assessment notes that in recent years a second quarry (Stubbs Farm) was also operating out of Washpool Lane and movements were accommodated within the highways network. This quarry has since closed. Therefore, there is established access and infrastructure in place which could enable this site to be worked. This may help reduce the adverse impacts of lorry traffic on the environment and communities. However, this would be uncertain, as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage. |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                        | ?        | At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

## SGCW4 (B) Kempsford/Whelford

| SA Objective                                                                                                                                                                              | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | 0        | <p>The site is not within 100m of any sensitive receptors. The closest sensitive receptor is 20 Whelford Road, located 260m to the southwest. The nearest settlement is Kempsford, which is approximately 300m to the southwest. Therefore, the site is expected to have no effects on the health of local residents and communities.</p> <p>In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.</p>                                                                                                                                                                                                                                                                                                                                         |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -?       | <p>The site is not within 100m of any sensitive receptors. The closest sensitive receptor is 20 Whelford Road, located 260m to the southwest. The nearest settlement is Kempsford, which is approximately 300m to the southwest. Therefore, the site is expected to have no effects on the amenity of local communities.</p> <p>Future residential sites in the Cotswolds District are to be allocated for development as part of the emerging Cotswold District Local Plan that has yet to be consulted upon. Therefore, any future residential sites within 100m of this site which could result in landuse conflict are currently unknown.</p> <p>However, as the site is within 1km of the settlement of Kempford, which is also within 1km of an existing mineral site (Kempsford/Manor Farm), continuing sand and gravel extraction activity in this area could have a cumulative effect on the amenity of the local community.</p> |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                                                  | 0        | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that own them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                                             | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant.                                                                                                                                |

| SA Objective                                                                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | -?       | The GCC assessment notes that the entire site lies within the safeguarding zone for RAF Fairford. Therefore, the site could have a minor negative effect on the safety of commercial or military aerodromes due to the potential for birds to provide a hazard to aircraft, especially as this site may be restored to a form of open water use as it is located close to the Cotswold Water Park. However, the effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. For example, the site may be restored to a dry after use due to being located within the RAF Fairford safeguarding zone, however, this could increase the risk of flooding as mentioned against SA Objective 13 below.                                                                                                                                                                                                                        |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard mineral resources from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | +        | The site has no internationally or nationally designated sites within 1km of the site and no locally designated sites are within 250m of the site. According to the GCC assessment, there is a Local Wildlife Site nearby (River Thames LWS in Wiltshire). Furthermore, the GCC site assessment notes that the site could make a useful contribution towards the Kempsford SNA which adjoins the site and this should be sought. Restoration, however, would have to take account of safeguarding aircraft using RAF Fairford, i.e. from the risk of bird strike. Therefore, as the GCC site assessment considers that there would be no adverse effects and biodiversity some biodiversity benefits are likely to accrue in a restoration scheme, and overall the site's impact on biodiversity could be potentially uncertain or positive, this site is predicted to have minor positive effects on biodiversity. However, these effects would be uncertain as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage. |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                  | 0?       | The site is more than 1km away from any AONB and is therefore considered unlikely to have an effect on this asset. It is uncertain whether there would be effects on local landscape character, as impacts on the landscape will depend upon factors such as how prominent sites are in the landscape, the level of screening proposed, and the character of the surrounding landscape, which has not been assessed within the GCC assessment at this stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including                                                            | +        | The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| SA Objective                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. |          | would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.      | -        | The site is within 250m of PRoW footpaths BKD 16/4, 17/1, 18/2 and 19/2-4, and could lead to minor negative effects on recreation activities and assets in the County by making the facilities less attractive for users.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                   | -?       | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> <p>The site is located within 500m of Barden Aggregates Pit Regionally Important Geological Site. Therefore, the site could have a minor negative effect on this objective. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p>                                         |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.       | -?       | <p>This site is located within 1km of Kempsford Conservation Area, and Scheduled Monument sites near Manor Ham Barn. The site is also within 1km of 19 Grade II listed buildings, and one Grade I listed building (Church of St Mary the Virgin), which is located approximately 880m south. Therefore, the site could have a minor negative effect on the setting of these assets; however, the effects would be uncertain as a more detailed assessment would be required once proposals are known.</p> <p>Furthermore the GCC assessment notes that the western part of the site contains a complex pattern of settlement and trackways, which could represent a significant constraint affecting development. Assessment and evaluation are required in order to determine the extent of the archaeological remains present.</p> |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.         | 0        | There is a section in the east of this site that is within flood zones 2, 3a and 3b. However, as the site is a sand and gravel extraction site, it is not expected to have an effect on flood risk areas, as sand and gravel workings are classed as water-compatible development and are potentially suitable for all flood zones including 3b, the functional floodplain. Although, if the site is restored to a dry after use due to being located within the RAF Fairford safeguarding zone, it could increase the risk of flooding. However, the type of restoration proposed and eventually developed on site will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.                                                                                          |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                     | -        | The site covers a medium area (19ha) and is mostly within grade 2 agricultural land (with a small area of non-agricultural land in the northwest), and could therefore have                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |



| SA Objective                                                                                                                                                                                                                                                                                          | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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|                                                                                                                                                                                                                                                                                                       |          | a minor negative effect on protecting or enhancing soil/land quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                                                                              | -        | The site is not within 1km of an AQMA or the strategic highway network. Traffic associated with the site is therefore likely to travel further along local roads. The site is therefore expected to have a minor negative impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                     |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                            | ?        | According to GCC, the site is not within source protection zones 1, 2 or 3. GCC also states that the site also overlies a Secondary A aquifer which may be capable of supporting water supplies at a local scale, and may form an important source of base flow to rivers. However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                         |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels | -?       | This site is more than 1km from the strategic highway network and as traffic associated with the site is therefore likely to travel further along local roads, there could be a minor negative effect on reducing the impacts of lorry traffic on the environment and communities. However, the GCC assessment notes that in recent years a second quarry (Stubbs Farm) was also operating out of Washpool Lane and movements were accommodated within the highways network. This quarry has since closed. Therefore, there is established access and infrastructure in place which could enable this site to be worked. This may help reduce the adverse impacts of lorry traffic on the environment and communities. However, this would be uncertain, as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage. |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                        | ?        | At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

### SGCW4 (C) Kempsford/Whelford

| SA Objective                                                                                                                                                                              | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | 0        | <p>The site is not within 100m of any sensitive receptors. The closest sensitive receptors are located in the settlement of Whelford to the north, where the nearest property is Queens Cottage, located 160m to the north. Therefore, the site is expected to have no effects on the health of local residents and communities.</p> <p>In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.</p>                                                                                                                                                                                                                                                                                                                                                                            |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -?       | <p>The site is not within 100m of any sensitive receptors. The closest sensitive receptors are located in the settlement of Whelford to the north, where the nearest property is Queens Cottage, located 160m to the north. Therefore, the site is expected to have no effects on the amenity of local communities.</p> <p>Future residential sites in the Cotswolds District are to be allocated for development as part of the emerging Cotswold District Local Plan that has yet to be consulted upon. Therefore, any future residential sites within 100m of this site which could result in landuse conflict are currently unknown.</p> <p>However, as the site is within 1km of the settlement of Whelford, which is also within 1km of existing mineral sites (Kempsford/Manor Farm and Claydon Pike/Coln/Thornhill Farm), continuing sand and gravel extraction activity in this area could have a cumulative effect on the amenity of the local community.</p> |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                                                  | 0        | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that own them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                                             | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant.                                                                                                                                                              |
| 5. To ensure that mineral sites do not compromise the safety of commercial                                                                                                                | -?       | The GCC assessment notes that the entire site lies within the safeguarding zone for RAF Fairford, and partially within the safeguarding zone for RAF Brize Norton. Therefore,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

| SA Objective                                                                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| or military aerodromes.                                                                                                                                                |          | the site could have a minor negative effect on the safety of commercial or military aerodromes due to the potential for birds to provide a hazard to aircraft, especially as this site may be restored to a form of open water use as it is located close to the Cotswold Water Park. However, the effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. For example, the site may be restored to a dry after use due to being located within the RAF Fairford safeguarding zone, however, this could increase the risk of flooding as mentioned against SA Objective 13 below.                                                                                                                                                                                                               |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard mineral resources from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | -/+?     | <p>The site is within 500m of the Cotswold Water Park SSSI, and is adjacent to Jenner's Farm Field Key Wildlife Site. The GCC site assessment notes that hedge and tree lines present across the site will need retaining as far as possible as they would have value for bats and hedgehog and potentially great crested newt. The Cotswold Water Park SSSI (&amp; KWS) is not far away but although they are the other side of the River Coln they might be impacted hydrologically. However, this site could make a useful contribution towards the Coln Corridor SNA which overlaps the site. Restoration, however, would have to take account of safeguarding aircraft using RAF Fairford, i.e. from the risk of bird strike.</p> <p>Therefore, a mixed minor negative and positive effect is predicted for this objective. This effect is uncertain as it will depend on the exact nature and design of new sites, which would not be known until the planning application stage.</p> |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                  | 0?       | The site is more than 1km away from any AONB and is therefore considered unlikely to have an effect on this asset. It is uncertain whether there would be effects on local landscape character, as impacts on the landscape will depend upon factors such as how prominent sites are in the landscape, the level of screening proposed, and the character of the surrounding landscape, which has not been assessed within the GCC assessment at this stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of                        | +        | The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

| SA Objective                                                                                      | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| biodiversity, and delivery of green infrastructure where possible.                                |          | the minerals site, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets. | --       | The site includes the PRoW footpaths BKD 27/1, 28/1, 28/2, 34/1 and 34/2 that make a network through the centre of the site. The GCC PRoW Team has identified that a diversion would be required for these footpaths and that the area is sensitive in terms of rights of way due to the temporary closure of some paths to allow development of lakeside properties. Therefore, the site could have significant negative effects on recreation activities, as development of the site could mean temporarily closing additional existing PRoWs while they are diverted, adding to the sensitivity of the area.                                                                                                                                             |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                              | 0        | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> <p>The site is not located within 500m of a Regionally Important Geological Site (the nearest RIGS is Barden Aggregates Pit, 660m south). Therefore, the site is not expected to affect this objective.</p>                                                                                                                                   |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.  | -?       | <p>This site is located within 1km of six Grade II listed buildings, the nearest of which (Wayside Cottage) is located approximately 325m north. Therefore, the site could have a minor negative effect on the setting of these assets; however, the effects would be uncertain as a more detailed assessment would be required once proposals are known.</p> <p>Furthermore the GCC assessment notes that extensive undated field boundaries are recorded throughout this area, and have already been evaluated. A mitigation strategy (excavation) is required.</p>                                                                                                                                                                                       |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.    | 0        | There are large sections in the east and west of this site that are within flood zones 2, 3a and 3b. However, as the site is a sand and gravel extraction site, it is not expected to have an effect on flood risk areas, as sand and gravel workings are classed as water-compatible development and are potentially suitable for all flood zones including 3b, the functional floodplain. Although, if the site is restored to a dry after use due to being located within the RAF Fairford safeguarding zone, it could increase the risk of flooding. However, the type of restoration proposed and eventually developed on site will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                | --       | The site covers a large area (85.5ha) and is mostly within agricultural land classified as grade 2 or grade 3, and could therefore have a significant negative effect on protecting or enhancing soil/land quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| SA Objective                                                                                                                                                                                                                                                                                          | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                                                                              | -        | The site is not within 1km of an AQMA or the strategic highway network. Traffic associated with the site is therefore likely to travel further along local roads. The site is therefore expected to have a minor negative impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                     |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                            | ?        | According to GCC, the site is not within source protection zones 1, 2 or 3. GCC also states that the site also overlies a Secondary A aquifer which may be capable of supporting water supplies at a local scale, and may form an important source of base flow to rivers. However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                         |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels | -?       | This site is more than 1km from the strategic highway network and as traffic associated with the site is therefore likely to travel further along local roads, there could be a minor negative effect on reducing the impacts of lorry traffic on the environment and communities. However, the GCC assessment notes that in recent years a second quarry (Stubbs Farm) was also operating out of Washpool Lane and movements were accommodated within the highways network. This quarry has since closed. Therefore, there is established access and infrastructure in place which could enable this site to be worked. This may help reduce the adverse impacts of lorry traffic on the environment and communities. However, this would be uncertain, as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage. |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                        | ?        | At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

## SGCW4 (D) Kempsford/Whelford

| SA Objective                                                                                                                                                                              | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | 0        | <p>The site is not within 100m of any sensitive receptors. The closest sensitive receptors are located in the settlement of Whelford to the north, where the nearest property is Queens Cottage, located 125m to the north. Therefore, the site is expected to have no effects on the health of local residents and communities.</p> <p>In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.</p>                                                                                                                                                                                                                                                                                                                                                                            |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -?       | <p>The site is not within 100m of any sensitive receptors. The closest sensitive receptors are located in the settlement of Whelford to the north, where the nearest property is Queens Cottage, located 125m to the north. Therefore, the site is expected to have no effects on the amenity of local communities.</p> <p>Future residential sites in the Cotswolds District are to be allocated for development as part of the emerging Cotswold District Local Plan that has yet to be consulted upon. Therefore, any future residential sites within 100m of this site which could result in landuse conflict are currently unknown.</p> <p>However, as the site is within 1km of the settlement of Whelford, which is also within 1km of existing mineral sites (Kempsford/Manor Farm and Claydon Pike/Coln/Thornhill Farm), continuing sand and gravel extraction activity in this area could have a cumulative effect on the amenity of the local community.</p> |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                                                  | 0        | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that own them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                                             | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant.                                                                                                                                                              |

| SA Objective                                                                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | -?       | The GCC assessment notes that the entire site lies within the safeguarding zone for RAF Fairford. Therefore, the site could have a minor negative effect on the safety of commercial or military aerodromes due to the potential for birds to provide a hazard to aircraft, especially as this site may be restored to a form of open water use as it is located close to the Cotswold Water Park. However, the effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. For example, the site may be restored to a dry after use due to being located within the RAF Fairford safeguarding zone. This could increase the risk of flooding if the site was located within a flood risk area, which this site is not.                                                                        |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard mineral resources from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | +        | <p>The Cotswold Water Park SSSI is 885m to the northeast of the site, and Jenner's Farm Field Key Wildlife Site is 675m to the east of the site. However, the GCC site assessment states that impacts on these sites are unlikely due to the large distance the site is away from them. The GCC site assessment also notes that the site would have little likely impact on biodiversity if used as a minerals site. The site could make a very small contribution towards the Kempsford SNA which overlaps the site and this should be sought. Restoration, however, would have to take account of safeguarding aircraft using RAF Fairford, i.e. from unacceptable risk of bird strike.</p> <p>Therefore, a minor positive effect is predicted for this objective. This effect is uncertain as it will depend on the exact nature and design of restoration and whether it contributes towards the Kempsford SNA, which would not be known until the planning application stage.</p> |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                  | 0?       | The site is more than 1km away from any AONB and is therefore considered unlikely to have an effect on this asset. It is uncertain whether there would be effects on local landscape character, as impacts on the landscape will depend upon factors such as how prominent sites are in the landscape, the level of screening proposed, and the character of the surrounding landscape, which has not been assessed within the GCC assessment at this stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

| SA Objective                                                                                                                                                                                                       | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.                                                                                                                                                                                              |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | --       | The site includes the PRoW footpath BKD 34/1 that crosses the centre of the site, but it is uncertain whether a diversion would be required. The GCC PRoW Team has identified that this is a very sensitive area in terms of rights of way in the light of the temporary closure of some paths to allow development of lakeside properties. Therefore, the site could have significant negative effects on recreation activities, as development of the site could mean temporarily closing additional existing PRoWs while they are diverted, but this is uncertain until it is determined whether the diversion is required. |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | 0        | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> <p>The site is not located within 500m of a Regionally Important Geological Site (the nearest RIGS is Barden Aggregates Pit, 1.1km south). Therefore, the site is not expected to affect this objective.</p>     |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                   | -        | <p>This site is located within 1km of five Grade II listed buildings, the nearest of which (Wayside Cottage) is located approximately 250m north. Therefore, the site could have a minor negative effect on the setting of these assets; however, the effects would be uncertain as a more detailed assessment would be required once proposals are known.</p> <p>Furthermore the GCC assessment notes that extensive undated field boundaries are recorded throughout this area, and have already been evaluated. A mitigation strategy (excavation) is required.</p>                                                         |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                     | 0        | As the site is a sand and gravel extraction site, it is not expected to have an effect on flood risk areas, as sand and gravel workings are classed as water-compatible development and are potentially suitable for all flood zones including 3b, the functional floodplain. In addition, the site is not within flood zones 2, 3a and 3b.                                                                                                                                                                                                                                                                                    |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                 | -        | The site is mostly within grade 2 agricultural land, with a small area of grade 3 agricultural land in the west of the site. As the site covers a small area (1ha) the negative effect on protecting or enhancing soil/land quality is expected to be minor.                                                                                                                                                                                                                                                                                                                                                                   |



| SA Objective                                                                                                                                                                                                                                                                                          | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                                                                              | -        | The site is not within 1km of an AQMA or the strategic highway network . Traffic associated with the site is therefore likely to travel further along local roads. The site is therefore expected to have a minor negative impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                    |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                            | ?        | According to GCC, the site is not within source protection zones 1, 2 or 3. GCC also states that the site also overlies a Secondary A aquifer which may be capable of supporting water supplies at a local scale, and may form an important source of base flow to rivers. However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                         |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels | -?       | This site is more than 1km from the strategic highway network and as traffic associated with the site is therefore likely to travel further along local roads, there could be a minor negative effect on reducing the impacts of lorry traffic on the environment and communities. However, the GCC assessment notes that in recent years a second quarry (Stubbs Farm) was also operating out of Washpool Lane and movements were accommodated within the highways network. This quarry has since closed. Therefore, there is established access and infrastructure in place which could enable this site to be worked. This may help reduce the adverse impacts of lorry traffic on the environment and communities. However, this would be uncertain, as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage. |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                        | ?        | At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

## SGCW4 (E) Kempsford/Whelford

| SA Objective                                                                                                                                                                              | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | -?       | The site is within 100m of one property (Watersmeet, 60m north). The nearest settlement is Whelsford, where there are properties within 170m to the west of the site. Therefore, the site could have a minor negative effect on health due to the potential for dust (PM10) to have a negative effect on the health of local residents and communities within close proximity to the site. However, this effect is uncertain, as the extent to which dust affects the nearby residents and settlement will depend on local circumstances such as the topography, nature of the landscape and the respective location of the site and sensitive receptors in relation to the prevailing wind direction. In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -        | <p>The site is within 100m of one property (Watersmeet, 60m north). The nearest settlement is Whelsford, where there are properties within 170m to the west of the site. Therefore, the site could have a minor negative effect on amenity for the nearby residents and settlement due to the potential noise and vibration associated with the mineral extraction operations. Noise and vibration effects may be less likely at this site than a site for crushed rock as sand and gravel rarely require blasting prior to excavation. However, the extent of these effects is very dependent on the scale of the operations and type of activities undertaken within the site as well as any potential mitigation measures proposed, which would be assessed at the planning application stage. While there may be some unavoidable short term effects due to noisy activities, it is assumed that mineral extraction at any of the potential sites will be well operated and that mitigation measures implemented should be sufficient to avoid any potential long term amenity effects.</p> <p>Future residential sites in the Cotswolds District are to be allocated for development as part of the emerging Cotswold District Local Plan that has yet to be consulted upon. Therefore, any future residential sites within 100m of this site which could result in landuse conflict are currently unknown.</p> <p>In addition, as the site is within 1km of the settlement of Whelford, which is also within 1km of existing mineral sites (Kempsford/Manor Farm and Claydon Pike/Coln/Thornhill Farm), continuing sand and gravel extraction activity in this area could have a cumulative effect on the amenity of the local community.</p> |
| 3. To promote sustainable economic development in Gloucestershire giving                                                                                                                  | 0        | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

| SA Objective                                                                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| opportunities to people from all social and ethnic backgrounds.                                                                                                        |          | own them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant.                                                                                                                                                  |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | -?       | The GCC assessment notes that the entire site lies within the safeguarding zone for RAF Fairford, and partially within the safeguarding zone for RAF Brize Norton. Therefore, the site could have a minor negative effect on the safety of commercial or military aerodromes due to the potential for birds to provide a hazard to aircraft, especially as this site may be restored to a form of open water use as it is located close to the Cotswold Water Park. However, the effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. For example, the site may be restored to a dry after use due to being located within the RAF Fairford safeguarding zone, however, this could increase the risk of flooding as mentioned against SA Objective 13 below. |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard mineral resources from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | -/+?     | Jenner's Farm Field Key Wildlife Site is located within the site boundary. In addition there are two SSSIs within 1km of the site (Cotswold Water Park SSSI, 270m north and Whelford Meadow, 960m northwest), as well as a Key Wildlife Site (Cotswold Water Park) 320m to the northeast. The GCC site assessment notes that it would be challenging to mitigate the impacts on biodiversity. The site would need to compensate for the loss of Jenner's Farm Field KWS. However, the KWS was designated for Shepherd's needle which likes disturbed ground and so there is an opportunity to benefit the species through minerals development. Furthermore, the GCC site assessment notes that the site could make a good contribution towards the Coln Corridor SNA which overlaps the site and this should be sought. Restoration, however, would have to take account of safeguarding aircraft using RAF Fairford, i.e. from the                        |

| SA Objective                                                                                                                                                                                                       | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                                                                                                                                                                                                                    |          | <p>risk of bird strike.</p> <p>Therefore, a mixed minor negative and positive effect is predicted for this objective. This effect is uncertain as it will depend on the exact nature and design of new sites and restoration proposals, which would not be known until the planning application stage.</p>                                                                                                                                                                                                                                                                                                                 |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | 0?       | The site is more than 1km away from any AONB and is therefore considered unlikely to have an effect on this asset. It is uncertain whether there would be effects on local landscape character, as impacts on the landscape will depend upon factors such as how prominent sites are in the landscape, the level of screening proposed, and the character of the surrounding landscape, which has not been assessed within the GCC assessment at this stage.                                                                                                                                                               |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.                                                                                                                                                                                          |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | -        | The site is within 250m of PRow footpaths BKD 27/1 and 28/2 (to the southwest), and could lead to minor negative effect on recreation activities assets in the County by making the facilities less attractive for users.                                                                                                                                                                                                                                                                                                                                                                                                  |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | 0        | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> <p>The site is not located within 500m of a Regionally Important Geological Site (the nearest RIGS is Thornhill Farm Pit, 935m northeast). Therefore, the site is not expected to affect this objective.</p> |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                   | -?       | <p>This site is located within 1km of six Grade II listed buildings, the nearest of which (Townsend Farmhouse) is located approximately 195m west. In addition, a Scheduled Monument (settlement site south of Claydon Cottages) is located 635m to the northeast. Therefore, the site could have a minor negative effect on the setting of these assets; however, the effects would be uncertain as a more detailed assessment would be required once proposals are known.</p> <p>Furthermore the GCC assessment notes that an enclosure is known on site from aerial</p>                                                 |

| SA Objective                                                                                                                                                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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|                                                                                                                                                                                                                                                        |          | photographic evidence. Assessment and evaluation are required in order to determine the extent of the archaeological remains.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                                                         | 0        | The majority of this site is within flood zone 2, with an area in the southeast that is also within flood zones 3a and 3b. However, as the site is a sand and gravel extraction site, it is not expected to have an effect on flood risk areas, as sand and gravel workings are classed as water-compatible development and are potentially suitable for all flood zones including 3b, the functional floodplain. Although, if the site is restored to a dry after use due to being located within the RAF Fairford safeguarding zone, it could increase the risk of flooding. However, the type of restoration proposed and eventually developed on site will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.                                                                                                |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                                                     | --       | The site covers a large area (20.5ha) and is mostly within agricultural land classified as grade 2 or grade 3, and could therefore have a significant negative effect on protecting or enhancing soil/land quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                               | -        | The site is not within 1km of an AQMA or the strategic highway network. Traffic associated with the site is therefore likely to travel further along local roads. The site is therefore expected to have a minor negative impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                         |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                             | ?        | According to GCC, the site is not within source protection zones 1, 2 or 3. GCC also states that the site also overlies a Secondary A aquifer which may be capable of supporting water supplies at a local scale, and may form an important source of base flow to rivers. However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage.                                                                                                                                                                                                                                                             |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing | -?       | This site is more than 1km from the strategic highway network and as traffic associated with the site is therefore likely to travel further along local roads, there could be a minor negative effect on reducing the impacts of lorry traffic on the environment and communities. However, the GCC assessment notes that in recent years a second quarry (Stubbs Farm) was also operating out of Washpool Lane and movements were accommodated within the highways network. This quarry has since closed. Therefore, there is established access and infrastructure in place which could enable this site to be worked. This may help reduce the adverse impacts of lorry traffic on the environment and communities. However, this would be uncertain, as the potential for effects will depend on the exact nature and design of the site, which would not be known until the |

| SA Objective                                                   | SA Score | Justification                                                                                                                                                                                                                                                                |
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| d) the use of sustainable alternative fuels                    |          | planning application stage.                                                                                                                                                                                                                                                  |
| 18. To reduce contributions to and to adapt to Climate Change. | ?        | At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage. |

## SGCW4 (F) Kempsford/Whelford

| SA Objective                                                                                                                                                                              | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | -?       | The site is within 100m of one property (Watersmeet, 70m west). The nearest settlement is Whelsford, where there are properties within 300m to the west of the site. Therefore, the site could have a minor negative effect on health due to the potential for dust (PM10) to have a negative effect on the health of local residents and communities within close proximity to the site. However, this effect is uncertain, as the extent to which dust affects the nearby residents and settlement will depend on local circumstances such as the topography, nature of the landscape and the respective location of the site and sensitive receptors in relation to the prevailing wind direction. In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -        | <p>The site is within 100m of one property (Watersmeet, 70m west). The nearest settlement is Whelsford, where there are properties within 300m to the west of the site. Therefore, the site could have a minor negative effect on amenity for the nearby residents and settlement due to the potential noise and vibration associated with the mineral extraction operations. Noise and vibration effects may be less likely at this site than a site for crushed rock as sand and gravel rarely require blasting prior to excavation. However, the extent of these effects is very dependent on the scale of the operations and type of activities undertaken within the site as well as any potential mitigation measures proposed, which would be assessed at the planning application stage. While there may be some unavoidable short term effects due to noisy activities, it is assumed that mineral extraction at any of the potential sites will be well operated and that mitigation measures implemented should be sufficient to avoid any potential long term amenity effects.</p> <p>Future residential sites in the Cotswolds District are to be allocated for development as part of the emerging Cotswold District Local Plan that has yet to be consulted upon. Therefore, any future residential sites within 100m of this site which could result in landuse conflict are currently unknown.</p> <p>In addition, as the site is within 1km of the settlement of Whelford, which is also within 1km of existing mineral sites (Kempsford/Manor Farm and Claydon Pike/Coln/Thornhill Farm), continuing sand and gravel extraction activity in this area could have a cumulative effect on the amenity of the local community.</p> |
| 3. To promote sustainable economic development in Gloucestershire giving                                                                                                                  | 0        | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

| SA Objective                                                                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| opportunities to people from all social and ethnic backgrounds.                                                                                                        |          | own them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant.                                                                                                                                                                            |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | -?       | The GCC assessment notes that the entire site lies within the safeguarding zone for RAF Fairford, and partially within the safeguarding zone for RAF Brize Norton. Therefore, the site could have a minor negative effect on the safety of commercial or military aerodromes due to the potential for birds to provide a hazard to aircraft, especially as this site may be restored to a form of open water use as it is located close to the Cotswold Water Park. However, the effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. For example, the site may be restored to a dry after use due to being located within the RAF Fairford safeguarding zone, however, this could increase the risk of flooding as mentioned against SA Objective 13 below.                           |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard mineral resources from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | -/+?     | <p>The Cotswold Water Park SSSI is located 36m to the north and Whelford Meadow SSSI 870m to the north. The site is also adjacent to Jenner's Farm Field Key Wildlife Site to the southwest, and 40m from the Cotswold Water Park Key Wildlife Site to the northeast. The GCC site assessment considers that the site poses a potential risk to the water environment and also notes the boundaries of the site are likely to hold good biodiversity value and so impact on biodiversity at least in the short-term is unlikely to be avoided. The site could make a good contribution towards the Coln Corridor SNA which overlaps the site and this should be sought. Restoration would have to take account of safeguarding aircraft using RAF Fairford, i.e. from the risk of bird strike.</p> <p>Therefore, overall a mixed minor negative and positive effect is predicted for this objective. This effect is uncertain as it will depend on the exact nature and design of</p> |



| SA Objective                                                                                                                                                                                                       | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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|                                                                                                                                                                                                                    |          | new sites and restoration proposals, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | 0?       | The site is more than 1km away from any AONB and is therefore considered unlikely to have an effect on this asset. It is uncertain whether there would be effects on local landscape character, as impacts on the landscape will depend upon factors such as how prominent sites are in the landscape, the level of screening proposed, and the character of the surrounding landscape, which has not been assessed within the GCC assessment at this stage.                                                                                                                                                                                                                                             |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                        |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | -        | The site is within 250m of PRoW footpaths BKD 28/4, BLE 38/1 and BLE 44/1, and could lead to minor negative effect on recreation activities assets in the County by making the facilities less attractive for users.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | 0        | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> <p>The site is not located within 500m of a Regionally Important Geological Site (the nearest RIGS is Thornhill Farm Pit, 630m northeast). Therefore, the site is not expected to affect this objective.</p>                                                                               |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                   | -?       | <p>This site is located within 1km of six Grade II listed buildings, the nearest of which (Townsend Farmhouse) is located approximately 320m west. In addition, a Scheduled Monument (settlement site south of Claydon Cottages) is located 340m to the northeast. Therefore, the site could have a minor negative effect on the setting of these assets; however, the effects would be uncertain as a more detailed assessment would be required once proposals are known.</p> <p>Furthermore the GCC assessment notes that an enclosure, possibly of Roman date, has been recorded on site. Assessment and evaluation are required in order to determine the extent of the archaeological remains.</p> |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                     | 0        | A large area in the south of this site is within flood zones 2, 3a and 3b. However, as the site is a sand and gravel extraction site, it is not expected to have an effect on flood risk areas, as sand and gravel workings are classed as water-compatible development                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| SA Objective                                                                                                                                                                                                                                                                                          | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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|                                                                                                                                                                                                                                                                                                       |          | and are potentially suitable for all flood zones including 3b, the functional floodplain. Although, if the site is restored to a dry after use due to being located within the RAF Fairford safeguarding zone, it could increase the risk of flooding. However, the type of restoration proposed and eventually developed on site will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                                                                                                    | --       | The site covers a large area (44ha) and is mostly within agricultural land classified as grade 2, with some areas of grade 3 agricultural land. The site could therefore have a significant negative effect on protecting or enhancing soil/land quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                                                                              | -        | The site is not within 1km of an AQMA or the strategic highway network. Traffic associated with the site is therefore likely to travel further along local roads. The site is therefore expected to have a minor negative impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                     |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                            | ?        | According to GCC, the site is not within source protection zones 1, 2 or 3. GCC also states that the site also overlies a Secondary A aquifer which may be capable of supporting water supplies at a local scale, and may form an important source of base flow to rivers. However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                         |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels | -?       | This site is more than 1km from the strategic highway network and as traffic associated with the site is therefore likely to travel further along local roads, there could be a minor negative effect on reducing the impacts of lorry traffic on the environment and communities. However, the GCC assessment notes that in recent years a second quarry (Stubbs Farm) was also operating out of Washpool Lane and movements were accommodated within the highways network. This quarry has since closed. Therefore, there is established access and infrastructure in place which could enable this site to be worked. This may help reduce the adverse impacts of lorry traffic on the environment and communities. However, this would be uncertain, as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage. |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                        | ?        | At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

## SGCW5 (A) Down Ampney

| SA Objective                                                                                                                                                                              | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | -?       | The site is within 100m of five properties, the closest being 80 Alex Farm (8m from the site boundary), 81 Alex Farm (11m from the site boundary) and 75 Alex Farm (16m from the site boundary). The nearest settlements are Latton (720m west), Down Ampney (840m northwest) and Marston Meysey (870m northeast). Therefore, the site could have a minor negative effect on health due to the potential for dust (PM10) to have a negative effect on the health of local residents and communities within close proximity to the site. However, this effect is uncertain, as the extent to which dust affects the nearby residents and settlement will depend on local circumstances such as the topography, nature of the landscape and the respective location of the site and sensitive receptors in relation to the prevailing wind direction. In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -        | <p>The site is within 100m of five properties, the closest being 80 Alex Farm (8m from the site boundary), 81 Alex Farm (11m from the site boundary) and 75 Alex Farm (16m from the site boundary). The nearest settlements are Latton (720m west), Down Ampney (840m northwest) and Marston Meysey (870m northeast). Therefore, the site could have a minor negative effect on amenity for the nearby residents and settlement due to the potential noise and vibration associated with the mineral extraction operations. Noise and vibration effects may be less likely at this site than a site for crushed rock as sand and gravel rarely require blasting prior to excavation. However, the extent of these effects is very dependent on the scale of the operations and type of activities undertaken within the site as well as any potential mitigation measures proposed, which would be assessed at the planning application stage. While there may be some unavoidable short term effects due to noisy activities, it is assumed that mineral extraction at any of the potential sites will be well operated and that mitigation measures implemented should be sufficient to avoid any potential long term amenity effects.</p> <p>Future residential sites in the Cotswolds District are to be allocated for development as part of the emerging Cotswold District Local Plan that has yet to be consulted upon. Therefore, any future residential sites within 100m of this site which could result in landuse conflict are currently unknown.</p> <p>In addition, as the site is within 1km of the settlement of Latton, which is also within 1km of an existing mineral site (Cerne Wick), continuing sand and gravel extraction activity in this area could have a cumulative effect on the amenity of the local</p> |

| SA Objective                                                                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                                                                                                                                                                        |          | community.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                               | 0        | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that own them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant.                                                                                 |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | -?       | The GCC assessment notes that the entire site lies within the safeguarding zone for RAF Fairford. Therefore, the site could have a minor negative effect on the safety of commercial or military aerodromes due to the potential for birds to provide a hazard to aircraft, especially as this site may be restored to a form of open water use as it is located close to the Cotswold Water Park. However, the effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. For example, the site may be restored to a dry after use due to being located within the RAF Fairford safeguarding zone, however, this could increase the risk of flooding as mentioned against SA Objective 13 below. |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard mineral resources from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | -/+?     | The site surrounds Down Ampney Pits KWS and is also within 1km of North Meadow & Clattinger Farm SAC. The GCC site assessment notes that impacts on international and national sites are unlikely but careful treatment close to the Down Ampney Pits KWS will be required, however, considers that some impacts on biodiversity are unavoidable. The GCC site assessment notes that this site is subject to a current planning application which has proposals to enhance biodiversity long-term in certain places, and as the site is an area for contributing to the delivery of Eysey and Ampney Corridor SNAs, then positive effects may be possible in the long-term. .                                                                                                                                                                                                              |

| SA Objective                                                                                                                                                                                                       | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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|                                                                                                                                                                                                                    |          | Therefore, overall a mixed minor negative and positive effect is predicted for this objective. This effect is uncertain as it will depend on the exact nature and design of new sites and restoration proposals, which would not be known until the planning application stage. In addition, any development proposal would need to be screened to see if an appropriate assessment under the Habitats Regulations is required due to the potential for effects on North Meadow & Clattinger Farm SAC either alone or in combination with other plans or projects, although the GCC assessment considers significant effects would be unlikely. |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | 0?       | The site is more than 1km away from any AONB and is therefore considered unlikely to have an effect on this asset. It is uncertain whether there would be effects on local landscape character, as impacts on the landscape will depend upon factors such as how prominent sites are in the landscape, the level of screening proposed, and the character of the surrounding landscape, which has not been assessed within the GCC assessment at this stage.                                                                                                                                                                                    |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.                                                                                                                                                                                                               |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | -        | The site includes the PRoW footpath BDA 7/1 that crosses the western part of the site. The GCC PRoW Team identify that this path would have to be diverted. Therefore, the site could have minor negative effects on recreation activities as the PRoW might be out of use while diverted, and minerals extraction at the site could make nearby recreational assets less attractive for users.                                                                                                                                                                                                                                                 |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | 0        | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> <p>The site is not located within 500m of a Regionally Important Geological Site (the nearest RIGS is Horcott Pit, 4.4km northeast). Therefore, the site is not expected to affect this objective.</p>                            |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                   | --?      | There is a scheduled monument (settlement at Bean Hay Copse) adjacent to the northwest of the site. In addition, Down Ampney Conservation Area is 470m to the northwest, which includes two Grade I listed buildings and seven Grade II listed                                                                                                                                                                                                                                                                                                                                                                                                  |

| SA Objective                                                                                                                                                               | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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|                                                                                                                                                                            |          | <p>buildings within 1km of the site. The grade I listed buildings are the Church of All Saints (760m from the site) and Down Ampney House (830m from the site). Therefore, the site could have a significant negative effect on the setting of these assets, however the effects would be uncertain as a more detailed assessment would be required once proposals are known.</p> <p>The GCC assessment notes that the settlement at Bean Hay Copse, designated as a scheduled monument is Roman.</p>                                                                                                                                                                                                                |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                             | 0        | The majority of this site is within flood zones 2, 3a and 3b. However, as the site is a sand and gravel extraction site, it is not expected to have an effect on flood risk areas, as sand and gravel workings are classed as water-compatible development and are potentially suitable for all flood zones including 3b, the functional floodplain. Although, if the site is restored to a dry after use due to being located within the RAF Fairford safeguarding zone, it could increase the risk of flooding. However, the type of restoration proposed and eventually developed on site will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                         | --       | The site covers a large area (91ha) and is within agricultural land classified as grade 2 or grade 3, and could therefore have a significant negative effect on protecting or enhancing soil/land quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                   | 0        | <p>The site is within 1km of the A419, and the increased road transport resulting from the site is likely to travel a shorter distance along local roads, and result in fewer localised air pollution issues that would otherwise occur from travelling more slowly on local roads.</p> <p>The site is not within 1km of an AQMA; therefore the site is expected to have a negligible impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.</p>                             |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply. | ?        | The site is not within source protection zone 1 but is within source protection zone 3. The majority of the site also overlies a Secondary A aquifer which may be capable of supporting water supplies at a local scale, and may form an important source of base flow to rivers. However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage.                                                                                          |
| 17. To reduce the adverse impacts of lorry traffic on the environment and                                                                                                  | +        | This site is within 1km of the A419 and could therefore have a minor positive effect on reducing the impacts of lorry traffic on the environment and communities as traffic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

| SA Objective                                                                                                                                                                                                                                                                                        | SA Score | Justification                                                                                                                                                                                                                                                                |
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| <p>communities through means such as:</p> <ul style="list-style-type: none"> <li>a) reducing the need to travel</li> <li>b) promoting more sustainable means of transport e.g. by rail or water</li> <li>c) sensitive lorry routing</li> <li>d) the use of sustainable alternative fuels</li> </ul> |          | associated with the site should not have to travel far on local roads.                                                                                                                                                                                                       |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                      | ?        | At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage. |

## SGCW5 (B) Down Ampney

| SA Objective                                                                                                                                                                              | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | -?       | There are three properties located within the site boundary – 80, 81 and 75 Alex Farm. The nearest settlement is Latton (approximately 1.25km west). Therefore, the site could have a minor negative effect on health due to the potential for dust (PM10) to have a negative effect on the health of local residents and communities within close proximity to the site. However, this effect is uncertain, as the extent to which dust affects the nearby residents and settlement will depend on local circumstances such as the topography, nature of the landscape and the respective location of the site and sensitive receptors in relation to the prevailing wind direction. In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -        | <p>There are three properties located within the site boundary – 80, 81 and 75 Alex Farm. The nearest settlement is Latton (approximately 1.25km west). Therefore, the site could have a minor negative effect on amenity for the nearby residents and settlement due to the potential noise and vibration associated with the mineral extraction operations. Noise and vibration effects may be less likely at this site than a site for crushed rock as sand and gravel rarely require blasting prior to excavation. However, the extent of these effects is very dependent on the scale of the operations and type of activities undertaken within the site as well as any potential mitigation measures proposed, which would be assessed at the planning application stage. While there may be some unavoidable short term effects due to noisy activities, it is assumed that mineral extraction at any of the potential sites will be well operated and that mitigation measures implemented should be sufficient to avoid any potential long term amenity effects.</p> <p>Future residential sites in the Cotswolds District are to be allocated for development as part of the emerging Cotswold District Local Plan that has yet to be consulted upon. Therefore, any future residential sites within 100m of this site which could result in landuse conflict are currently unknown.</p> <p>As the site is not within 1km of any settlements, and the nearby properties are not within 1km of any other existing mineral sites, there are no cumulative effects expected on the local community.</p> |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social                                                                          | 0        | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that own them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |



| SA Objective                                                                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| and ethnic backgrounds.                                                                                                                                                |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant.                                                                                                                                                                                  |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | -?       | The GCC assessment notes that the entire site lies within the safeguarding zone for RAF Fairford. Therefore, the site could have a minor negative effect on the safety of commercial or military aerodromes due to the potential for birds to provide a hazard to aircraft, especially as this site may be restored to a form of open water use as it is located close to the Cotswold Water Park. However, the effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. For example, the site may be restored to a dry after use due to being located within the RAF Fairford safeguarding zone, however, this could increase the risk of flooding as mentioned against SA Objective 13 below.                                                                                                  |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard mineral resources from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | -/+?     | <p>The site is located on Down Ampney Pits Key Wildlife Site and within 1km of North Meadow &amp; Clattinger Farm SAC. However, while there may be some potential for adverse effects on biodiversity at these sites, the GCC site assessment notes that there would have to be a compelling case to extract here with a proven long-term benefit for biodiversity.</p> <p>Therefore, overall a mixed minor negative and positive effect is predicted for this objective. This effect is uncertain as it will depend on the exact nature and design of new sites and restoration proposals, which would not be known until the planning application stage. In addition, any development proposal would need to be screened to see if an appropriate assessment under the Habitats Regulations is required due to the potential for effects on North Meadow &amp; Clattinger Farm SAC either alone or in combination with other plans or projects, although the GCC assessment considers</p> |

| SA Objective                                                                                                                                                                                                       | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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|                                                                                                                                                                                                                    |          | significant effects would be unlikely.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | 0?       | The site is more than 1km away from any AONB and is therefore considered unlikely to have an effect on this asset. It is uncertain whether there would be effects on local landscape character, as impacts on the landscape will depend upon factors such as how prominent sites are in the landscape, the level of screening proposed, and the character of the surrounding landscape, which has not been assessed within the GCC assessment at this stage.                                                                                                                                                       |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.                                                                                                                                                                                  |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | -        | The site includes the PRoW footpath BDA 7/1 that crosses the western part of the site. The GCC PRoW Team identify that this path would have to be diverted. Therefore, the site could have minor negative effects on recreation activities as the PRoW might be out of use while diverted, and minerals extraction at the site could make nearby recreational assets less attractive for users.                                                                                                                                                                                                                    |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | 0        | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> <p>The site is not located within 500m of a Regionally Important Geological Site (the nearest RIGS is Horcott Pit, 5km northeast). Therefore, the site is not expected to affect this objective.</p> |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                   | -?       | <p>There is a scheduled monument (settlement at Bean Hay Copse) 500m to the northwest of the site. Therefore, the site could have a minor negative effect on the setting of these assets, however the effects would be uncertain as a more detailed assessment would be required once proposals are known.</p> <p>The GCC assessment notes that the site seems to have been previously quarried.</p>                                                                                                                                                                                                               |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                     | 0        | The majority of this site is within flood zones 2, 3a and 3b (apart from a very small area in the northwest of the site). However, as the site is a sand and gravel extraction site, it is not expected to have an effect on flood risk areas, as sand and gravel                                                                                                                                                                                                                                                                                                                                                  |

| SA Objective                                                                                                                                                                                                                                                                                          | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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|                                                                                                                                                                                                                                                                                                       |          | workings are classed as water-compatible development and are potentially suitable for all flood zones including 3b, the functional floodplain. Although, if the site is restored to a dry after use due to being located within the RAF Fairford safeguarding zone, it could increase the risk of flooding. However, the type of restoration proposed and eventually developed on site will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.                                                                                                              |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                                                                                                    | -        | The site covers a medium area (8.5ha) and is within agricultural land classified as grade 3, and could therefore have a minor negative effect on protecting or enhancing soil/land quality.                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                                                                              | -        | The site is not within 1km of an AQMA or the strategic highway network (A419 is 1.1km to the southwest). Traffic associated with the site is therefore likely to travel further along local roads. The site is therefore expected to have a minor negative impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.                                                                   |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                            | ?        | The site is not within source protection zone 1 but is within source protection zone 3. The majority of the site also overlies a Secondary A aquifer which may be capable of supporting water supplies at a local scale, and may form an important source of base flow to rivers. However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage. |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels | -        | This site is more than 1km from the strategic highway network (A419 is 1.1km to the southwest) and as traffic associated with the site is therefore likely to travel further along local roads, there could be a minor negative effect on reducing the impacts of lorry traffic on the environment and communities.                                                                                                                                                                                                                                                                                                         |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                        | ?        | At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change                                                                                                                                                                                                                                                                                                                                                                                                                                              |

| SA Objective | SA Score | Justification                                                                                 |
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|              |          | as it will depend on the proposal, which would be assessed at the planning application stage. |

### SGCW5 (C) Down Ampney

| SA Objective                                                                                                                                                                              | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | -?       | The site is within 100m of eight properties, with seven of those seeming to be residential, and the other being agricultural buildings. The nearest settlements are Down Ampney (600m west) and Marston Meysey (220m east). Therefore, the site could have a minor negative effect on health due to the potential for dust (PM10) to have a negative effect on the health of local residents and communities within close proximity to the site. However, this effect is uncertain, as the extent to which dust affects the nearby residents and settlement will depend on local circumstances such as the topography, nature of the landscape and the respective location of the site and sensitive receptors in relation to the prevailing wind direction. In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -        | <p>The site is within 100m of eight properties, with seven of those seeming to be residential, and the other being agricultural buildings. The nearest settlements are Down Ampney (600m west) and Marston Meysey (220m east). Therefore, the site could have a minor negative effect on amenity for the nearby residents and settlement due to the potential noise and vibration associated with the mineral extraction operations. Noise and vibration effects may be less likely at this site than a site for crushed rock as sand and gravel rarely require blasting prior to excavation. However, the extent of these effects is very dependent on the scale of the operations and type of activities undertaken within the site as well as any potential mitigation measures proposed, which would be assessed at the planning application stage. While there may be some unavoidable short term effects due to noisy activities, it is assumed that mineral extraction at any of the potential sites will be well operated and that mitigation measures implemented should be sufficient to avoid any potential long term amenity effects.</p> <p>Future residential sites in the Cotswolds District are to be allocated for development as part of the emerging Cotswold District Local Plan that has yet to be consulted upon in Spring 2014. Therefore, any future residential sites within 100m of this site which could result in landuse conflict are currently unknown.</p> <p>As the nearby settlements and properties are not within 1km of any other existing mineral sites, there are no cumulative effects expected on the local community.</p> |
| 3. To promote sustainable economic development in Gloucestershire giving                                                                                                                  | 0        | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

| SA Objective                                                                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| opportunities to people from all social and ethnic backgrounds.                                                                                                        |          | own them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant.                                                                                                                                                                                                            |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | -?       | The GCC assessment notes that the entire site lies within the safeguarding zone for RAF Fairford. Therefore, the site could have a minor negative effect on the safety of commercial or military aerodromes due to the potential for birds to provide a hazard to aircraft, especially as this site may be restored to a form of open water use as it is located close to the Cotswold Water Park. However, the effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. For example, the site may be restored to a dry after use due to being located within the RAF Fairford safeguarding zone, however, this could increase the risk of flooding as mentioned against SA Objective 13 below.                                                                                                                            |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard mineral resources from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | -/+?     | <p>Down Ampney Pits Key Wildlife Site is 185m to the southwest of the site and the site is within 1km of North Meadow &amp; Clattinger Farm SAC. The GCC site assessment notes that the site is an extensive area of mainly arable but with significant strips and blocks of woodland (plantations) in places. A large variety of notable species are recorded but those actually on site are probably more limited. The site area overlaps Eysey SNA so there is scope for good contributions to this SNA but this would have to be in addition to compensating for woodland features etc. already present.</p> <p>Therefore, overall a mixed minor negative and positive effect is predicted for this objective. This effect is uncertain as it will depend on the exact nature and design of new sites and restoration proposals, which would not be known until the planning application stage. In addition, any development proposal would need to be screened to see if an appropriate assessment under the</p> |

| SA Objective                                                                                                                                                                                                       | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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|                                                                                                                                                                                                                    |          | Habitats Regulations is required due to the potential for effects on North Meadow & Clattinger Farm SAC either alone or in combination with other plans or projects, although the GCC assessment considers significant effects would be unlikely.                                                                                                                                                                                                                                                                                                                                                                    |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | 0?       | The site is more than 1km away from any AONB and is therefore considered unlikely to have an effect on this asset. It is uncertain whether there would be effects on local landscape character, as impacts on the landscape will depend upon factors such as how prominent sites are in the landscape, the level of screening proposed, and the character of the surrounding landscape, which has not been assessed within the GCC assessment at this stage.                                                                                                                                                         |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.                                                                                                                                                                                    |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | -        | The site includes the PRoW footpath BDA 11/2 that crosses the north east of the site and footpath 9/2 is adjacent to the eastern boundary. The GCC PRoW has identified that diversion of footpath 9/2 would be necessary. Therefore, the site could have minor negative effects on recreation activities as the PRoW might be out of use while diverted, and minerals extraction at the site could make nearby recreational assets less attractive for users.                                                                                                                                                        |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | 0        | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> <p>The site is not located within 500m of a Regionally Important Geological Site (the nearest RIGS is Horcott Pit, 3.1km northeast). Therefore, the site is not expected to affect this objective.</p> |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                   | -?       | There is a scheduled monument (settlement at Bean Hay Copse) adjacent to the west of the site. In addition, Down Ampney Conservation Area is 425m to the west, which includes two grade I listed buildings and seven grade II listed buildings within 1km of the site. The grade I listed buildings are the Church of All Saints (760m from the site) and Down Ampney House (830m from the site). There are also nine other grade I listed buildings within 1km of the site, with the closest located adjacent to the north (Castle Hill Farm). Therefore, the site could have a significant negative effect on the  |

| SA Objective                                                                                                                                                               | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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|                                                                                                                                                                            |          | <p>setting of these assets, however the effects would be uncertain as a more detailed assessment would be required once proposals are known.</p> <p>The GCC assessment notes that a number of archaeological features are known from aerial photography across this site including settlement enclosures, trackways and other features. The use of the area as an airfield is likely to have resulted in sites being obscured and under-represented on aerial photographs.</p>                                                                                                                                                                                                                                                          |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                             | 0        | <p>A large area in the east of this site is within flood zones 2, 3a and 3b. However, as the site is a sand and gravel extraction site, it is not expected to have an effect on flood risk areas, as sand and gravel workings are classed as water-compatible development and are potentially suitable for all flood zones including 3b, the functional floodplain. Although, if the site is restored to a dry after use due to being located within the RAF Fairford safeguarding zone, it could increase the risk of flooding. However, the type of restoration proposed and eventually developed on site will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.</p> |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                         | --       | <p>The site covers a large area (242ha) and is within agricultural land classified as grade 2 or grade 3, and could therefore have a significant negative effect on protecting or enhancing soil/land quality.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                   | -        | <p>The site is not within 1km of an AQMA or the strategic highway network (A419 is 1.3km to the southwest). Traffic associated with the site is therefore likely to travel further along local roads. The site is therefore expected to have a minor negative impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.</p>                                                                                                                                                                        |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply. | ?        | <p>The site is not within source protection zone 1 but is within source protection zone 3. The majority of the site also overlies a Secondary A aquifer which may be capable of supporting water supplies at a local scale, and may form an important source of base flow to rivers. However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage.</p>                                                                                                      |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel                             | -        | <p>This site is more than 1km from the strategic highway network (A419 is 1.3km to the southwest) and as traffic associated with the site is therefore likely to travel further along local roads, there could be a minor negative effect on reducing the impacts of lorry traffic on the environment and communities.</p>                                                                                                                                                                                                                                                                                                                                                                                                              |



| SA Objective                                                                                                                                        | SA Score | Justification                                                                                                                                                                                                                                                                |
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| b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels |          |                                                                                                                                                                                                                                                                              |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                      | ?        | At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage. |

## SGCW6 (A) Charlham Farm

| SA Objective                                                                                                                                                                              | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | -?       | This site is adjacent to the settlement of Down Ampney, where there are over 30 properties located within 100m of the site boundary. Therefore, the site could have a minor negative effect on health due to the potential for dust (PM10) to have a negative effect on the health of local residents and communities within close proximity to the site. However, this effect is uncertain, as the extent to which dust affects the nearby residents and settlement will depend on local circumstances such as the topography, nature of the landscape and the respective location of the site and sensitive receptors in relation to the prevailing wind direction. In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -        | <p>This site is adjacent to the settlement of Down Ampney, where there are over 30 properties located within 100m of the site boundary. Therefore, the site could have a minor negative effect on amenity for the nearby residents and settlement due to the potential noise and vibration associated with the mineral extraction operations. Noise and vibration effects may be less likely at this site than a site for crushed rock as sand and gravel rarely require blasting prior to excavation. However, the extent of these effects is very dependent on the scale of the operations and type of activities undertaken within the site as well as any potential mitigation measures proposed, which would be assessed at the planning application stage. While there may be some unavoidable short term effects due to noisy activities, it is assumed that mineral extraction at any of the potential sites will be well operated and that mitigation measures implemented should be sufficient to avoid any potential long term amenity effects.</p> <p>Future residential sites in the Cotswolds District are to be allocated for development as part of the emerging Cotswold District Local Plan that has yet to be consulted upon. Therefore, any future residential sites within 100m of this site which could result in landuse conflict are currently unknown.</p> <p>As Down Ampney and the nearby properties are not within 1km of any other existing mineral sites, there are no cumulative effects expected on the local community.</p> <p>The GCC assessment notes that this site is not associated with any current mineral operations and that safe and suitable access from the classified road, then onto the A1417 would need to be determined. This access could lead to effects on local communities, however, effects would be uncertain as the potential for effects will</p> |

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|                                                                                                                                                                        |          | depend on the exact nature and design of the site, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                               | 0        | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that own them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant.                                                                                 |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | -?       | The GCC assessment notes that the entire site lies within the safeguarding zone for RAF Fairford. Therefore, the site could have a minor negative effect on the safety of commercial or military aerodromes due to the potential for birds to provide a hazard to aircraft, especially as this site may be restored to a form of open water use as it is located close to the Cotswold Water Park. However, the effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. For example, the site may be restored to a dry after use due to being located within the RAF Fairford safeguarding zone, however, this could increase the risk of flooding as mentioned against SA Objective 13 below. |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard mineral resources from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | -/+?     | <p>The west of the site is adjacent to The Folly KWS, the site is also adjacent to the Ampney Brook which is a constraint but also an opportunity for biodiversity enhancement as it is in Ampney Corridor SNA. A woodland adjacent to Folly KWS has biodiversity interest which is on the opposite side of the Ampney Brook.</p> <p>Therefore, overall a mixed minor negative and positive effect is predicted for this objective. This effect is uncertain as it will depend on the exact nature and design of new sites and restoration proposals, which would not be known until the planning</p>                                                                                                                                                                                                                                                                                      |

| SA Objective                                                                                                                                                                                                       | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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|                                                                                                                                                                                                                    |          | application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | 0?       | The site is more than 1km away from any AONB and is therefore considered unlikely to have an effect on this asset. It is uncertain whether there would be effects on local landscape character, as impacts on the landscape will depend upon factors such as how prominent sites are in the landscape, the level of screening proposed, and the character of the surrounding landscape, which has not been assessed within the GCC assessment at this stage.                                                                                                                                                                                                                                                                                                                                                             |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                        |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | -        | The PRow footpaths BDA 1/1 and 2/1 are located within the northern boundary of the site, and footpath 1/2 is adjacent to the eastern boundary. The GCC PRow team has noted that the area is popular with walkers and that diversion of these footpaths would be required. Therefore, the site could have minor negative effects on recreation activities as the PRows might be out of use while diverted, and minerals extraction at the site could make nearby recreational assets less attractive for users.                                                                                                                                                                                                                                                                                                           |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | 0        | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> <p>The site is not located within 500m of a Regionally Important Geological Site (the nearest RIGS is South Cerney Gravel Pit, 3.7km west). Therefore, the site is not expected to affect this objective.</p>                                                                                                                                                                                              |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                   | -?       | <p>This site is located within 1km of Down Ampney Conservation Area, and three Scheduled Monument sites (settlement at Bean Hay Copse, Village Cross at Down Ampney, and a Roman Villa). The site is also within 1km of 22 Grade II listed buildings, and two Grade I listed buildings (Church of All Saints and Down Ampney House). Therefore, the site could have a minor negative effect on the setting of these assets; however, the effects would be uncertain as a more detailed assessment would be required once proposals are known.</p> <p>Furthermore, the GCC assessment notes that the county HER has recorded evidence of earlier settlement in the form of undated boundary ditches, trackways and enclosures identified mainly from aerial photography. In addition, a ring ditch (probably a Bronze</p> |

| SA Objective                                                                                                                                                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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|                                                                                                                                                                                                                                                        |          | Age burial site) and other Bronze Age finds have been recorded, and a Roman burial found in the 19th century lies close to the western edge of the site.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                                                         | 0        | The majority of this site is within flood zones 2, 3a and 3b. However, as the site is a sand and gravel extraction site, it is not expected to have an effect on flood risk areas, as sand and gravel workings are classed as water-compatible development and are potentially suitable for all flood zones including 3b, the functional floodplain. Although, if the site is restored to a dry after use due to being located within the RAF Fairford safeguarding zone, it could increase the risk of flooding. However, the type of restoration proposed and eventually developed on site will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage.                                                                  |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                                                     | --       | The site covers a large area (147.5ha) and is within agricultural land classified as grade 2 or grade 3, and could therefore have a significant negative effect on protecting or enhancing soil/land quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                               | -        | The site is not within 1km of an AQMA or the strategic highway network (A419 is 1.5km to the west). Traffic associated with the site is therefore likely to travel further along local roads. The site is therefore expected to have a minor negative impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.                                                                                                                                                                                                                                  |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                             | ?        | The site is not within source protection zone 1 but is within source protection zones 2 and 3. The majority of the site also overlies a Secondary A aquifer which may be capable of supporting water supplies at a local scale, and may form an important source of base flow to rivers. However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage.                                                                                                                                                    |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing | -?       | This site is more than 1km from the strategic highway network (A419) and as traffic associated with the site is therefore likely to travel further along local roads, there could be a minor negative effect on reducing the impacts of lorry traffic on the environment and communities. Furthermore, the GCC assessment notes that this site is not associated with any current mineral operations and that safe and suitable access from the classified road, then onto the A1417 would need to be determined. This access could lead to effects on local communities and the environment, however, effects would be uncertain as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage. |

| SA Objective                                                   | SA Score | Justification                                                                                                                                                                                                                                                                |
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| d) the use of sustainable alternative fuels                    |          |                                                                                                                                                                                                                                                                              |
| 18. To reduce contributions to and to adapt to Climate Change. | ?        | At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage. |

## SGCW7 (A) Wetstone Bridge

| SA Objective                                                                                                                                                                              | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | -?       | The site is within 100m of one property (Whetstone Bridge Farmhouse, 75m northwest). The nearest settlement is Marston Meysey (450m northeast), where there are a number of additional properties within 1km of the site. Therefore, the site could have a minor negative effect on health due to the potential for dust (PM10) to have a negative effect on the health of local residents and communities within close proximity to the site. However, this effect is uncertain, as the extent to which dust affects the nearby residents and settlement will depend on local circumstances such as the topography, nature of the landscape and the respective location of the site and sensitive receptors in relation to the prevailing wind direction. In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -        | <p>The site is within 100m of one property (Whetstone Bridge Farmhouse, 75m northwest). The nearest settlement is Marston Meysey (450m northeast). Therefore, the site could have a minor negative effect on amenity for the nearby residents and settlement due to the potential noise and vibration associated with the mineral extraction operations. Noise and vibration effects may be less likely at this site than a site for crushed rock as sand and gravel rarely require blasting prior to excavation. However, the extent of these effects is very dependent on the scale of the operations and type of activities undertaken within the site as well as any potential mitigation measures proposed, which would be assessed at the planning application stage. While there may be some unavoidable short term effects due to noisy activities, it is assumed that mineral extraction at any of the potential sites will be well operated and that mitigation measures implemented should be sufficient to avoid any potential long term amenity effects.</p> <p>Future residential sites in the Cotswolds District are to be allocated for development as part of the emerging Cotswold District Local Plan that has yet to be consulted upon. Therefore, any future residential sites within 100m of this site which could result in landuse conflict are currently unknown.</p> <p>As Marston Meysey, and the nearby properties are not within 1km of any other existing</p> |

| SA Objective                                                                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                                                                                                                                                                        |          | mineral sites, there are no cumulative effects expected on the local community.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                               | 0        | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that own them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant.                                                                                 |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | -?       | The GCC assessment notes that the entire site lies within the safeguarding zone for RAF Fairford. Therefore, the site could have a minor negative effect on the safety of commercial or military aerodromes due to the potential for birds to provide a hazard to aircraft, especially as this site may be restored to a form of open water use as it is located close to the Cotswold Water Park. However, the effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. For example, the site may be restored to a dry after use due to being located within the RAF Fairford safeguarding zone, however, this could increase the risk of flooding as mentioned against SA Objective 13 below. |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard mineral resources from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | -/+?     | <p>The site is in proximity to the River Thames and Isis Local Wildlife Sites in Wiltshire. The nearest designation within Gloucestershire is Down Ampney Pits Key Wildlife Site, 860m to the west of the site. The GCC site assessment notes that there are some on-site biodiversity constraints such as foraging bats and badgers but minerals development on the site would be otherwise an opportunity for biodiversity enhancement within the Eysey SNA (adjacent to Roundhouse Farm SNA).</p> <p>Therefore, overall a mixed minor negative and positive effect is predicted for this</p>                                                                                                                                                                                                                                                                                            |



| SA Objective                                                                                                                                                                                                       | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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|                                                                                                                                                                                                                    |          | objective. This effect is uncertain as it will depend on the exact nature and design of new sites and restoration proposals, which would not be known until the planning application stage. .                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | 0?       | The site is more than 1km away from any AONB and is therefore considered unlikely to have an effect on this asset. It is uncertain whether there would be effects on local landscape character, as impacts on the landscape will depend upon factors such as how prominent sites are in the landscape, the level of screening proposed, and the character of the surrounding landscape, which has not been assessed within the GCC assessment at this stage.                                                                                                                                                         |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.                                                                                                                                                                                    |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | 0        | No leisure or recreational facilities or open spaces, including PRow are affected by this site. Therefore, the site is not expected to have an effect on recreation assets.                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | 0        | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> <p>The site is not located within 500m of a Regionally Important Geological Site (the nearest RIGS is Horcott Pit, 3.8km northeast). Therefore, the site is not expected to affect this objective.</p> |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                   | -?       | There are no designated historic assets within GCC that are within 1km of this site. However, the GCC assessment notes that an archaeological evaluation identified an Iron Age settlement and other features. In addition, the adjacent site SGCW7 (B) is archaeologically sensitive and located directly north of an extensive Romano-British settlement which is a Scheduled Monument (Settlement NE of Eisey Field Copse). The site could have a minor negative effect on the setting of this asset; however, the effect would be uncertain as a more detailed assessment would be required once proposals       |

| SA Objective                                                                                                                                                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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|                                                                                                                                                                                                                                                        |          | are known.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                                                         | 0        | The majority of this site is within flood zones 2, 3a and 3b. However, as the site is a sand and gravel extraction site, it is not expected to have an effect on flood risk areas, as sand and gravel workings are classed as water-compatible development and are potentially suitable for all flood zones including 3b, the functional floodplain. Although, if the site is restored to a dry after use due to being located within the RAF Fairford safeguarding zone, it could increase the risk of flooding. However, the type of restoration proposed and eventually developed on site will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                                                     | -        | The site is entirely within grade 3 agricultural land. As the site covers a small area (1ha) the negative effect on protecting or enhancing soil/land quality is expected to be minor.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                               | -        | The site is not within 1km of an AQMA or the strategic highway network (A419). Traffic associated with the site is therefore likely to travel further along local roads. The site is therefore expected to have a minor negative impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.                                                                                                                                                                                      |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                             | ?        | The site is not within source protection zone 1 but is within source protection zones 3 (with an area of SPZ 2 in the north of the site). The majority of the site also overlies a Secondary A aquifer which may be capable of supporting water supplies at a local scale, and may form an important source of base flow to rivers. However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage.                                        |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing | -        | This site is more than 1km from the strategic highway network (A419) and as traffic associated with the site is therefore likely to travel further along local roads, there could be a minor negative effect on reducing the impacts of lorry traffic on the environment and communities.                                                                                                                                                                                                                                                                                                                                                                                                                            |

| SA Objective                                                   | SA Score | Justification                                                                                                                                                                                                                                                                |
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| d) the use of sustainable alternative fuels                    |          |                                                                                                                                                                                                                                                                              |
| 18. To reduce contributions to and to adapt to Climate Change. | ?        | At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage. |

## SGCW8 (A) Spratsgate Lane

| SA Objective                                                                                                                                                                              | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | -?       | The site is within 100m of one property (Waterland Outdoor Pursuits, 30m south), which is used for recreational purposes. The nearest settlements are Shorncote (Old Manor Barn is nearest property in Shorncote, 230m north), and Somerford Keynes (approximately 700m southwest). Therefore, the site could have a minor negative effect on health due to the potential for dust (PM10) to have a negative effect on the health of local residents and communities within close proximity to the site. However, this effect is uncertain, as the extent to which dust affects the nearby residents and settlement will depend on local circumstances such as the topography, nature of the landscape and the respective location of the site and sensitive receptors in relation to the prevailing wind direction. In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -        | <p>The site is within 100m of one property (Waterland Outdoor Pursuits, 30m south), which is used for recreational purposes. The nearest settlements are Shorncote (Old Manor Barn is nearest property in Shorncote, 230m north), and Somerford Keynes (approximately 700m southwest). Therefore, the site could have a minor negative effect on amenity for the nearby residents and settlement due to the potential noise and vibration associated with the mineral extraction operations. Noise and vibration effects may be less likely at this site than a site for crushed rock as sand and gravel rarely require blasting prior to excavation. However, the extent of these effects is very dependent on the scale of the operations and type of activities undertaken within the site as well as any potential mitigation measures proposed, which would be assessed at the planning application stage. While there may be some unavoidable short term effects due to noisy activities, it is assumed that mineral extraction at any of the potential sites will be well operated and that mitigation measures implemented should be sufficient to avoid any potential long term amenity effects.</p> <p>Future residential sites in the Cotswolds District are to be allocated for development as part of the emerging Cotswold District Local Plan that has yet to be consulted upon. Therefore, any future residential sites within 100m of this site which could result in landuse conflict are currently unknown.</p> <p>As the existing mineral sites at Dryleaze Farm and Shorncote are within 1km of Shorncote and nearby sensitive receptors, continuing sand and gravel extraction</p> |

| SA Objective                                                                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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|                                                                                                                                                                        |          | activity in this area could have a cumulative effect on the amenity of the local community.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                               | 0        | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that own them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant.                                                                                                      |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | -?       | The GCC assessment notes that the entire site lies within the safeguarding zone for RAF Fairford. Therefore, the site could have a minor negative effect on the safety of commercial or military aerodromes due to the potential for birds to provide a hazard to aircraft, especially as this site may be restored to a form of open water use as it is located close to the Cotswold Water Park. However, the effects would be uncertain as it is dependent on the type of restoration proposed and eventually developed on a site, which will not be known until a later stage in the Minerals Local Plan preparation or even at the planning application stage. For example, the site may be restored to a dry after use due to being located within the RAF Fairford safeguarding zone. This could increase the risk of flooding if the site was located within a flood risk area, which this site is not. |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard mineral resources from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | +        | The east of the site is adjacent to the Cotswold Water Park Key Wildlife Site and the south of the site is 360m from Coke's Pit Lake Local Nature Reserve. The GCC site assessment notes that a previous planning application (to be re-submitted) included a restoration scheme to bring about local biodiversity enhancement. Therefore, the GCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

| SA Objective                                                                                                                                                                                                       | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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|                                                                                                                                                                                                                    |          | site assessment considers that the overall impact on biodiversity is potentially uncertain or positive, and a minor positive effect is predicted on this objective. However, these effects would be uncertain as the potential for effects will depend on the exact nature and design of the site and restoration proposals, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | 0?       | The site is more than 1km away from any AONB and is therefore considered unlikely to have an effect on this asset. It is uncertain whether there would be effects on local landscape character, as impacts on the landscape will depend upon factors such as how prominent sites are in the landscape, the level of screening proposed, and the character of the surrounding landscape, which has not been assessed within the GCC assessment at this stage.                                                                                                                                                                                                                                                                                                                                                                                                              |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +?       | The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | -        | The site is within 250m of PRoW footpaths BSK 9/1, 11/1 and 3, and 12/1 (to the north), and could lead to minor negative effect on recreation activities assets in the County by making the facilities less attractive for users.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | -?       | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> <p>The site is located within 500m of two Regionally Important Geological Sites – Spratsgate Lane Sand and Gravel Pit (90m southwest) and Shorncliffe Quarry (435m northeast). Therefore, the site could have a minor negative effect on this objective. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> |
| 12. To protect conserve and enhance the historic environment, heritage                                                                                                                                             | -?       | This site is located within 1km of Somerford Keynes Conservation Area (730m southwest), and 22 listed buildings (20 grade II listed and two grade II* listed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

| SA Objective                                                                                                                                                                                                                                                                                    | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| assets and their setting.                                                                                                                                                                                                                                                                       |          | buildings). Therefore, the site could have a minor negative effect on the setting of these assets; however, the effects would be uncertain as a more detailed assessment would be required once proposals are known.<br><br>Furthermore, the GCC assessment notes that extensive evidence of prehistoric activity has been identified by evaluation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                                                                                                  | 0        | As the site is a sand and gravel extraction site, it is not expected to have an effect on flood risk areas, as sand and gravel workings are classed as water-compatible development and are potentially suitable for all flood zones including 3b, the functional floodplain. In addition, the site is not within flood zones 2, 3a and 3b.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                                                                                              | -        | The site covers a medium area (9ha) and is mostly within agricultural land classified as grade 2 (with a small area of non-agricultural land along the eastern boundary relating to the Cotswold Water Park), and could therefore have a minor negative effect on protecting or enhancing soil/land quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                                                                        | -        | The site is not within 1km of an AQMA or the strategic highway network (A429). Traffic associated with the site is therefore likely to travel further along local roads. The site is therefore expected to have a minor negative impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                  |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                      | ?        | The site is not within source protection zone 1 but is within source protection zones 3 (with a small area of SPZ 2). The majority of the site also overlies a Secondary A aquifer which may be capable of supporting water supplies at a local scale, and may form an important source of base flow to rivers. However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage.                                                                                                                                                                                        |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative | -?       | This site is more than 1km from the strategic highway network (A429) and as traffic associated with the site is therefore likely to travel further along local roads, there could be a minor negative effect on reducing the impacts of lorry traffic on the environment and communities. However, the GCC assessment notes that Spratsgate Lane has previously been regularly used by HGVs when Spratsgate quarry was operating and there are no highways restrictions on Spratsgate Lane restricting its use of HGVs. Also, the County Highways representative has made no objection to the proposals of the current application on the site and did not raise any concerns relating to the proposed vehicle movements, or road safety issues and only made recommendations for planning conditions relating to the construction of the site's |

| SA Objective                                                   | SA Score | Justification                                                                                                                                                                                                                                                                                                                  |
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| fuels                                                          |          | access, car parking and wheel cleaning facilities. Therefore, negative impacts on the environment and communities may not be as adverse, although this would be uncertain, as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage. |
| 18. To reduce contributions to and to adapt to Climate Change. | ?        | At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage.                                                   |



## Sand and Gravel Severn Vale

### SGTW1 (A) Page's Lane

| SA Objective                                                                                                                                                                              | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | -?       | The site is within 100m of two properties – Sion House (adjacent to the south) and The Bungalow (75m southeast). There are four settlements within 1km of the site – Twynning (nearest property 550m northeast), Twynning Green (780m northeast), Church End (190m southeast), and Shuthonger (830m southwest). Therefore, the site could have a minor negative effect on health due to the potential for dust (PM10) to have a negative effect on the health of local residents and communities within close proximity to the site. However, this effect is uncertain, as the extent to which dust affects the nearby residents and settlement will depend on local circumstances such as the topography, nature of the landscape and the respective location of the site and sensitive receptors in relation to the prevailing wind direction. In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.                                                                                                                                                                                                                                                                                                                                                                              |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -        | <p>The site is within 100m of two properties – Sion House (adjacent to the south) and The Bungalow (75m southeast). There are four settlements within 1km of the site – Twynning (nearest property 550m northeast), Twynning Green (780m northeast), Church End (190m southeast), and Shuthonger (830m southwest). Therefore, the site could have a minor negative effect on amenity for the nearby residents and settlement due to the potential noise and vibration associated with the mineral extraction operations. Noise and vibration effects may be less likely at this site than a site for crushed rock as sand and gravel rarely require blasting prior to excavation. However, the extent of these effects is very dependent on the scale of the operations and type of activities undertaken within the site as well as any potential mitigation measures proposed, which would be assessed at the planning application stage. While there may be some unavoidable short term effects due to noisy activities, it is assumed that mineral extraction at any of the potential sites will be well operated and that mitigation measures implemented should be sufficient to avoid any potential long term amenity effects.</p> <p>The site is not within 100m of any areas allocated for new residential development in the Gloucester, Cheltenham and Tewkesbury Draft Joint Core Strategy (October 2013), therefore there should not be any landuse conflict.</p> |

| SA Objective                                                                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                                                                                                                                                                        |          | As the nearby properties and settlements are not within 1km of any other existing mineral sites, there are no cumulative effects expected on the local community.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                               | 0        | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that own them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant. |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | 0        | The site is not within an aerodrome safeguarding area and is therefore not expected to have an effect on this objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard mineral resources from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                 |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | +        | No internationally or nationally designated sites are within 1km of the site. There is one Key Wildlife Site within 1km of the site - Brockeridge Common KWS (535m north). The GCC site assessment notes the site holds opportunity for some local biodiversity enhancement. Therefore, the GCC site assessment considers the overall impact on biodiversity is potentially uncertain or positive, and a minor positive effect is predicted on this objective. However, these effects would be uncertain as the potential for effects will depend on the exact nature and design of the site and restoration proposals, which would not be known until the planning application stage.                                                                                                                     |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                  | 0?       | The site is more than 1km away from any AONB and is therefore considered unlikely to have an effect on this asset. It is uncertain whether there would be effects on local landscape character, as impacts on the landscape will depend upon factors such as how prominent sites are in the landscape, the level of screening proposed, and the character of the surrounding landscape, which has not been assessed within the GCC assessment                                                                                                                                                                                                                                                                                                                                                              |

| SA Objective                                                                                                                                                                                                       | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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|                                                                                                                                                                                                                    |          | at this stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | -        | The PRoW footpath ATW 36/1 crosses through the centre of the site. The GCC PRoW team has noted that diversion of the footpath would be required. Therefore, the site could have minor negative effects on recreation activities as the PRoW might be out of use while diverted, and minerals extraction at the site could make nearby recreational assets less attractive for users.                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | 0        | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> <p>The site is not located within 500m of a Regionally Important Geological Site (the nearest RIGS is Mythe Railway Cutting, 2.1km south). Therefore, the site is not expected to affect this objective.</p>                                                                                                                                                                                                                                        |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                   | -?       | <p>This site is located within 1km of Church End Conservation Area (130m southeast), and a Scheduled Monument at Towbury Hill Camp (880m northwest). In addition, there are 33 listed buildings within 1km of the site, one of which is grade II* listed (Church of St Mary Magdalene, 300m southeast), and the others are grade II listed. Therefore, the site could have a minor negative effect on the setting of these assets; however, the effects would be uncertain as a more detailed assessment would be required once proposals are known.</p> <p>Furthermore, the GCC assessment notes that although the archaeological interest in the site is uncertain, evidence from the surrounding landscape suggests the presence of early settlement. Evaluation will be required to establish the extent and significance of any heritage assets present.</p> |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                     | 0        | As the site is a sand and gravel extraction site, it is not expected to have an effect on flood risk areas, as sand and gravel workings are classed as water-compatible development and are potentially suitable for all flood zones including 3b, the functional floodplain. In addition, the site is not within flood zones 2, 3a and 3b.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

| SA Objective                                                                                                                                                                                                                                                                                          | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                                                                                                    | -        | The site covers a medium area (6ha) and is completely within agricultural land classified as grade 2, and could therefore have a minor negative effect on protecting or enhancing soil/land quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                                                                              | 0        | <p>The site is adjacent to the A38 that runs along the western boundary of the site, and the increased road transport resulting from the site is likely to travel a shorter distance along local roads, and result in fewer localised air pollution issues that would otherwise occur from travelling more slowly on local roads.</p> <p>The site is not within 1km of an AQMA; therefore the site is expected to have a negligible impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.</p> |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                            | ?        | The site is not within source protection zones 1, 2 or 3, but the site overlies a Secondary A aquifer which may be capable of supporting water supplies at a local scale, and may form an important source of base flow to rivers. However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage.                                                                                                                                                           |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels | +        | The site is adjacent to the A38 that runs along the western boundary of the site, and could therefore have a minor positive effect on reducing the impacts of lorry traffic on the environment and communities as traffic associated with the site should not have to travel far on local roads.                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                        | ?        | At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

## SGTW1 (B) Page's Lane

| SA Objective                                                                                                                                                                              | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | -?       | The site is within 100m of sixteen properties, which are mainly located at the adjacent settlement of Church End (southeast), although the nearest property is Sion House (opposite Page's Lane to the north). There are three other settlements within 1km of the site – Twyning (760m northeast), Twyning Green (950m northeast), and Shuthonger (640m southwest). Therefore, the site could have a minor negative effect on health due to the potential for dust (PM10) to have a negative effect on the health of local residents and communities within close proximity to the site. However, this effect is uncertain, as the extent to which dust affects the nearby residents and settlement will depend on local circumstances such as the topography, nature of the landscape and the respective location of the site and sensitive receptors in relation to the prevailing wind direction. In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -        | <p>The site is within 100m of sixteen properties, which are mainly located at the adjacent settlement of Church End (southeast), although the nearest property is Sion House (opposite Page's Lane to the north). There are three other settlements within 1km of the site – Twyning (760m northeast), Twyning Green (950m northeast), and Shuthonger (640m southwest). Therefore, the site could have a minor negative effect on amenity for the nearby residents and settlement due to the potential noise and vibration associated with the mineral extraction operations. Noise and vibration effects may be less likely at this site than a site for crushed rock as sand and gravel rarely require blasting prior to excavation. However, the extent of these effects is very dependent on the scale of the operations and type of activities undertaken within the site as well as any potential mitigation measures proposed, which would be assessed at the planning application stage. While there may be some unavoidable short term effects due to noisy activities, it is assumed that mineral extraction at any of the potential sites will be well operated and that mitigation measures implemented should be sufficient to avoid any potential long term amenity effects.</p> <p>The site is not within 100m of any areas allocated for new residential development in the Gloucester, Cheltenham and Tewkesbury Draft Joint Core Strategy (October 2013), therefore there should not be any landuse conflict.</p> <p>As the nearby properties and settlements are not within 1km of any other existing mineral sites, there are no cumulative effects expected on the local community.</p> |

| SA Objective                                                                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                                                                                                                                                                        |          | The GCC assessment notes that this site is not associated with any current mineral operations and that there appears to be sufficient capacity within the network (A38/M50) to accommodate proposed movements. However, the suitability of and the mitigation for the network would need to be determined, and safe and suitable access would be required onto the A38. This could lead to effects on the local community, however, effects would be uncertain as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage.                                                                                                                                                                                         |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                               | 0        | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that own them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant. |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | 0        | The site is not within an aerodrome safeguarding area and is therefore not expected to have an effect on this objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard mineral resources from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                 |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | +?       | There are no internationally or nationally designated sites within 1km of the site. There is one Key Wildlife Site within 1km of the site –Brockeridge Common (760m north). The GCC site assessment notes the site holds opportunity for some local biodiversity enhancement. Therefore, the GCC site assessment considers the overall impact on biodiversity is potentially uncertain or positive, and a minor positive effect is predicted on this objective. However, these effects would be uncertain as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage.                                                                                                                                              |

| SA Objective                                                                                                                                                                                                       | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | 0?       | The site is more than 1km away from any AONB and is therefore considered unlikely to have an effect on this asset. It is uncertain whether there would be effects on local landscape character, as impacts on the landscape will depend upon factors such as how prominent sites are in the landscape, the level of screening proposed, and the character of the surrounding landscape, which has not been assessed within the GCC assessment at this stage.                                                                                                                                                                                                                                                                                                                                                           |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                      |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | -        | The site is within 250m of PRow footpaths ATW 34/2 (30m northwest) and ATW 36/1 (125m north), and could lead to minor negative effect on recreation activities assets in the County by making the facilities less attractive for users.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | 0        | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> <p>The site is not located within 500m of a Regionally Important Geological Site (the nearest RIGS is Mythe Railway Cutting, 1.9km south). Therefore, the site is not expected to affect this objective.</p>                                                                                                                                                                                             |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                   | --?      | <p>This site is located within 1km of a Scheduled Monument at Towbury Hill Camp (990m northwest) and 32 listed buildings, one of which is grade II* listed (Church of St Mary Magdalene, 190m southeast). In addition, Church End Conservation Area is adjacent to the southeast, which suggests that the site could have a significant negative effect on the setting of these assets; however, the effects would be uncertain as a more detailed assessment would be required once proposals are known.</p> <p>Furthermore, the GCC assessment notes that although the archaeological interest in the site is uncertain, evidence from the surrounding landscape suggests the presence of early settlement. Evaluation will be required to establish the extent and significance of any heritage assets present.</p> |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                     | 0        | As the site is a sand and gravel extraction site, it is not expected to have an effect on flood risk areas, as sand and gravel workings are classed as water-compatible development and are potentially suitable for all flood zones including 3b, the functional                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

| SA Objective                                                                                                                                                                                                                                                                                                                 | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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|                                                                                                                                                                                                                                                                                                                              |          | floodplain. In addition, the site is not within flood zones 2, 3a and 3b.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                                                                                                                           | -        | The site is entirely within grade 2 agricultural land. As the site covers a small area (5ha) the negative effect on protecting or enhancing soil/land quality is expected to be minor.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                                                                                                     | 0        | <p>The site is adjacent to the A38 that runs along the western boundary of the site, and the increased road transport resulting from the site is likely to travel a shorter distance along local roads, and result in fewer localised air pollution issues that would otherwise occur from travelling more slowly on local roads.</p> <p>The site is not within 1km of an AQMA; therefore the site is expected to have a negligible impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.</p>                                                                                              |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                                                   | ?        | The site is not within source protection zones 1, 2 or 3, but the site overlies a Secondary A aquifer which may be capable of supporting water supplies at a local scale, and may form an important source of base flow to rivers. However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage.                                                                                                                                                                                                                                                        |
| <p>17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:</p> <p>a) reducing the need to travel</p> <p>b) promoting more sustainable means of transport e.g. by rail or water</p> <p>c) sensitive lorry routing</p> <p>d) the use of sustainable alternative fuels</p> | +/-?     | The site is adjacent to the A38 that runs along the western boundary of the site, and could therefore have a minor positive effect on reducing the impacts of lorry traffic on the environment and communities as traffic associated with the site should not have to travel far on local roads. However, the GCC assessment notes that this site is not associated with any current mineral operations and the suitability of and the mitigation for the network would need to be determined, and safe and suitable access would be required onto the A38. This could lead to negative effects on the local community and the environment, however, effects would be uncertain as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage. |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                                               | ?        | At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |



## SGTW1 (C) Page's Lane

| SA Objective                                                                                                                                                                              | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | -?       | The site is within 100m of two properties – Elm Corner Farm (65m to the north) and Westcroft (80m north). There are three settlements within 1km of the site – Twynning (460m northeast), Twynning Green (700m east), and Church End (330m south). Therefore, the site could have a minor negative effect on health due to the potential for dust (PM10) to have a negative effect on the health of local residents and communities within close proximity to the site. However, this effect is uncertain, as the extent to which dust affects the nearby residents and settlement will depend on local circumstances such as the topography, nature of the landscape and the respective location of the site and sensitive receptors in relation to the prevailing wind direction. In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -        | <p>The site is within 100m of two properties – Sion House (adjacent to the south) and The Bungalow (75m southeast). There are four settlements within 1km of the site – Twynning (nearest property 550m northeast), Twynning Green (780m northeast), Church End (190m southeast), and Shuthonger (830m southwest). Therefore, the site could have a minor negative effect on amenity for the nearby residents and settlement due to the potential noise and vibration associated with the mineral extraction operations. Noise and vibration effects may be less likely at this site than a site for crushed rock as sand and gravel rarely require blasting prior to excavation. However, the extent of these effects is very dependent on the scale of the operations and type of activities undertaken within the site as well as any potential mitigation measures proposed, which would be assessed at the planning application stage. While there may be some unavoidable short term effects due to noisy activities, it is assumed that mineral extraction at any of the potential sites will be well operated and that mitigation measures implemented should be sufficient to avoid any potential long term amenity effects.</p> <p>The site is not within 100m of any areas allocated for new residential development in the Gloucester, Cheltenham and Tewkesbury Draft Joint Core Strategy (October 2013), therefore there should not be any landuse conflict.</p> <p>As the nearby properties and settlements are not within 1km of any other existing mineral sites, there are no cumulative effects expected on the local community.</p> |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social                                                                          | 0        | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

| SA Objective                                                                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| and ethnic backgrounds.                                                                                                                                                |          | own them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant. |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | 0        | The site is not within an aerodrome safeguarding area and is therefore not expected to have an effect on this objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard mineral resources from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                 |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | +        | There are no internationally or nationally designated sites within 1km of the site. There is one Key Wildlife Site within 1km of the site – Brockeridge Common (440m north). The GCC site assessment notes the site holds opportunity for some local biodiversity enhancement. Therefore, the GCC site assessment considers the overall impact on biodiversity is potentially uncertain or positive, and a minor positive effect is predicted on this objective. However, these effects would be uncertain as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage.                                                                                                                                             |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                  | 0?       | The site is more than 1km away from any AONB and is therefore considered unlikely to have an effect on this asset. It is uncertain whether there would be effects on local landscape character, as impacts on the landscape will depend upon factors such as how prominent sites are in the landscape, the level of screening proposed, and the character of the surrounding landscape, which has not been assessed within the GCC assessment at this stage.                                                                                                                                                                                                                                                                                                                                               |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of                        | +        | The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

| SA Objective                                                                                                                             | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| biodiversity, and delivery of green infrastructure where possible.                                                                       |          | the minerals site, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                        | -        | The site is within 250m of PRoW footpaths ATW 27/1 (120m northeast) and ATW 36/1 (120m southeast), and could lead to minor negative effect on recreation activities assets in the County by making the facilities less attractive for users.                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                     | 0        | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> <p>The site is not located within 500m of a Regionally Important Geological Site (the nearest RIGS is Showborough Common Sand and Gravel Pit, 2.3km north). Therefore, the site is not expected to affect this objective.</p>                                                                 |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                         | -?       | <p>This site is located within 1km of Church End Conservation Area (250m south), and 27 listed buildings, one of which is grade II* listed (Church of St Mary Magdalene, 420m south). Therefore, the site could have a minor negative effect on the setting of these assets; however, the effects would be uncertain as a more detailed assessment would be required once proposals are known.</p> <p>Furthermore, the GCC assessment notes that although the archaeological interest in the site is uncertain, evidence from the surrounding landscape suggests the presence of early settlement. Evaluation will be required to establish the extent and significance of any heritage assets present.</p> |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                           | 0        | As the site is a sand and gravel extraction site, it is not expected to have an effect on flood risk areas, as sand and gravel workings are classed as water-compatible development and are potentially suitable for all flood zones including 3b, the functional floodplain. In addition, the site is not within flood zones 2, 3a and 3b.                                                                                                                                                                                                                                                                                                                                                                 |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                       | -        | The site is entirely within grade 2 agricultural land. As the site covers a small area (1ha) the negative effect on protecting or enhancing soil/land quality is expected to be minor.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality. | 0        | <p>The site is within 1km to the A38 (220m west of the site), and the increased road transport resulting from the site is likely to travel a shorter distance along local roads, and result in fewer localised air pollution issues that would otherwise occur from travelling more slowly on local roads.</p> <p>The site is not within 1km of an AQMA; therefore the site is expected to have a negligible impact on protecting air quality, although this impact is very dependent on</p>                                                                                                                                                                                                                |

| SA Objective                                                                                                                                                                                                                                                                                          | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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|                                                                                                                                                                                                                                                                                                       |          | the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                           |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                            | ?        | The site is not within source protection zones 1, 2 or 3, but the site overlies a Secondary A aquifer which may be capable of supporting water supplies at a local scale, and may form an important source of base flow to rivers. However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage. |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels | +        | The site is within 1km to the A38 (220m west of the site), and could therefore have a minor positive effect on reducing the impacts of lorry traffic on the environment and communities as traffic associated with the site should not have to travel far on local roads.                                                                                                                                                                                                                                                                                                    |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                        | ?        | At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                 |

## SGTW2 (A) Redpools Farm

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | 0        | <p>The site is not within 100m of any sensitive receptors. The closest sensitive receptor is Bow Farm located approximately 500m to the north of the site boundary, while the closest settlement, which is Bow, is located over within 500m of the north of the site. Therefore, the site is expected to have no effects on the health of local residents and communities.</p> <p>In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | 0?       | <p>The site is not within 100m of any sensitive receptors. The closest sensitive receptor is Bow Farm located approximately 500m to the north of the site boundary, while the closest settlement, which is Bow, is located over within 500m of the north of the site. Therefore, the site is expected to have no effects on the amenity of local communities.</p> <p>The site is not within 100m of any areas allocated for new residential development in the Gloucester, Cheltenham and Tewkesbury Draft Joint Core Strategy (October 2013), therefore there should not be any landuse conflict.</p> <p>There are no other existing mineral sites also within 1km of nearby settlements; therefore the site is not expected to have a cumulative effect on the amenity of the local community.</p> <p>The GCC assessment notes that there is no highways history for any of the parcels (A-D) of Redpools Farm. However, the applicant has suggested that access at Parcel D onto the A38 could be used to access all resources (Parcels A-D) including land at Bow Farm (which the operator controls) in Worcestershire. It is believed that there is sufficient highways capacity but significant junction improvements would be required. This could lead to effects on the local community from lorry traffic, however, effects would be uncertain as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage.</p> |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                                                  | 0        | <p>No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that own them.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| SA Objective and Sub Questions                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant.                                                                                                                                                |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | 0        | The site is not within an aerodrome safeguarding area and is therefore not expected to have an effect on this objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | -/+?     | <p>There are a number of local wildlife sites nearby to the site: Ripple Brook; Ripple Lake &amp; The Napps; Ripple Meadow; and River Severn (all in Worcestershire). The southern boundary of the site is within 1km of Mythe Composite Site Key Wildlife Site. The GCC site assessment notes that the site is located on coastal &amp; floodplain grazing marsh with hedgerows and rivers on the boundaries, therefore there is some potential for negative effects on biodiversity. However, due to the site's location within the Bushley SNA, there are opportunities for habitat creation and biodiversity enhancement in the longer term. Therefore, overall a mixed minor negative and positive effect is expected. These</p> <p>effects would be uncertain as the potential for effects will depend on the exact nature and design of the site and any restoration proposals, which would not be known until the planning application stage.</p> |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                  | 0?       | The site is more than 1km away from any AONB and is therefore considered unlikely to have an effect on this asset. It is uncertain whether there would be effects on local landscape character, as impacts on the landscape will depend upon factors such as how prominent sites are in the landscape, the level of screening proposed, and the character                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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|                                                                                                                                                                                                                    |          | of the surrounding landscape, which has not been assessed within the GCC assessment at this stage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | -        | The PRow bridleway ATW/37/1 is within 250m of the eastern boundary of the site. Therefore, the site could have a minor negative effect on recreation activities by making the footpath less attractive to users.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | 0        | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> <p>The site is more than 500m from any national sites of geological interest (SSSI) or Regionally Important Geological Sites. Therefore, the site is not expected to affect this objective.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                   | -?       | <p>The south east corner of the site is within 1km of six listed buildings located within Shuthonger, the closest being Twynning Farm including Walled Garden and Dairy (Grade II) located approximately 710m away. The northern boundary of the site is within 1km of eight listed buildings located within Bow and Puckrup, the closest being Bow Bridge Cottage (Grade II) located approximately 600m away. The northern boundary is also within 1km of Towbury Hill Camp Scheduled Ancient Monument. Therefore, the site could have a minor negative effect on the setting of these assets, however, the effects would be uncertain as a more detailed assessment would be required once proposals are known.</p> <p>The GCC assessment notes that the archaeological interest in this site is as yet uncertain. Evidence from the surrounding landscape suggests the presence of early settlement. The assessment also notes that evaluation will be required to establish the extent and significance of any heritage assets present, and that the setting of adjacent</p> |

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                        | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                                                                                                                                                                                                                                                                                                       |          | listed buildings and conservation areas will require assessment.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                                                                                                        | 0        | The site is located within flood zones 2, 3a and 3b. However, as the site is a sand and gravel extraction site it is not expected to have an effect on flood risk areas, as sand and gravel workings are classed as water-compatible development and are potentially suitable for all flood zones including 3b, the functional floodplain.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                                                                                                    | 0        | The site is within grade 4 agricultural land and is therefore not expected to have an effect on protecting or enhancing soil/land quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                                                                              | 0        | The site is within 950m of the A38 but is not within 1km of an AQMA; therefore the site is expected to have a negligible impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                            | ?        | The site is not within a source protection zone but does overlay a Secondary A aquifer which may be capable of supporting water supplies at a local scale, and may form an important source of base flow to rivers. However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                              |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels | +/-?     | This site is within 950m of the A38 and could therefore have a minor positive effect on reducing the impacts of lorry traffic on the environment and communities as traffic associated with the site should not have to travel far on local roads. However, the GCC assessment notes that there is no highways history for any of the parcels (A-D) of Redpools Farm. Although, the applicant has suggested that access at Parcel D onto the A38 could be used to access all resources (Parcels A-D) including land at Bow Farm (which the operator controls) in Worcestershire. It is believed that there is sufficient highways capacity but significant junction improvements would be required. This could lead to adverse effects on the local community and the environment, however, effects would be uncertain as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage. |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                        | ?        | At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |



| SA Objective and Sub Questions | SA Score | Justification                                                                                 |
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|                                |          | as it will depend on the proposal, which would be assessed at the planning application stage. |

## SGTW2 (B) Redpools Farm

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | -?       | <p>The south east corner of the site is within 100m of Far End (a residential property). The settlements Puckrup, Church End and Shuthonger are within 300m of the site, located to the north, east and south east of the site respectively. Therefore, the site could have a minor negative effect on health due to the potential for dust (PM10) to have a negative effect on the health of local residents and communities within close proximity to the site. However, this effect is uncertain, as the extent to which dust affects the nearby residents and settlement will depend on local circumstances such as the topography, nature of the landscape and the respective location of the site, Far End, Puckrup, Church End and Shuthonger in relation to the prevailing wind direction. In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -        | <p>The south east corner of the site is within 100m of Far End (a residential property). The settlements Puckrup, Church End and Shuthonger are within 300m of the site, located to the north, east and south east of the site respectively. Therefore, the site could have a minor negative effect on amenity for the nearby residents and settlement due to the potential noise and vibration associated with the mineral extraction operations. Noise and vibration effects may be less likely at this site than a site for crushed rock as sand and gravel rarely require blasting prior to excavation. However, the extent of these effects is very dependent on the scale of the operations and type of activities undertaken within the site as well as any potential mitigation measures proposed, which would be assessed at the planning application stage. While there may be some unavoidable short term effects due to noisy activities, it is assumed that mineral extraction at any of the potential sites will be well operated and that mitigation measures implemented should be sufficient to avoid any potential long term amenity effects.</p> <p>The site is not within 100m of any areas allocated for new residential development in the Gloucester, Cheltenham and Tewkesbury Draft Joint Core Strategy (October 2013), therefore there should not be any landuse conflict.</p> <p>There are no other existing mineral sites also within 1km of nearby settlements; therefore the site is not expected to have a cumulative effect on the amenity of the local community.</p> |

| SA Objective and Sub Questions                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                                                                                                                                                                        |          | The GCC assessment notes that there is no highways history for any of the parcels (A-D) of Redpools Farm. However, the applicant has suggested that access at Parcel D onto the A38 could be used to access all resources (Parcels A-D) including land at Bow Farm (which the operator controls) in Worcestershire. It is believed that there is sufficient highways capacity but significant junction improvements would be required. This could lead to effects on the local community from lorry traffic, however, effects would be uncertain as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage.                                                                                                       |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                               | 0        | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that own them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant. |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | 0        | The site is not within an aerodrome safeguarding area and is therefore not expected to have an effect on this objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                                   |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | +?       | The site is within 1km of the following locally designated sites: Ripple Brook; Ripple Lake & The Napps; Ripple Meadow; and River Severn (all in Worcestershire); and the Mythe Composite Site. The GCC site assessment notes that almost half of the land falls within Bushley SNA. The land has been agriculturally improved with some hedgerows and trees around field margins/boundaries in places. It is only slightly elevated above                                                                                                                                                                                                                                                                                                                                                                 |

| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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|                                                                                                                                                                                                                    |          | the general floodplain level to the west but significantly elevated to the east. If mineral is extracted on the site then there is some scope to restore it to Coastal & Floodplain Grazing Marsh or Eutrophic Standing Water or Reedbed which will enhance the ecological network present. As the site borders Mythe Brook which may have some biodiversity interest this will need to be considered. Therefore, the GCC site assessment considers the overall impact on biodiversity is potentially uncertain or positive, and a minor positive effect is predicted on this objective. However, these effects would be uncertain as the potential for effects will depend on the exact nature and design of the site and any restoration proposals, which would not be known until the planning application stage. |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                                                              | 0?       | The site is more than 1km away from any AONB and is therefore considered unlikely to have an effect on this asset. It is uncertain whether there would be effects on local landscape character, as impacts on the landscape will depend upon factors such as how prominent sites are in the landscape, the level of screening proposed, and the character of the surrounding landscape, which has not been assessed within the GCC assessment at this stage                                                                                                                                                                                                                                                                                                                                                          |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                    |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | -        | The PRoW bridleway ATW/37/1 runs through the middle of the site north to south. The GCC PRoW Team has identified that a diversion would be required. Furthermore, the GCC PRoW Team state that mineral developments could well offer opportunity of enhancement but at this stage and without checking on the ground or consulting the parishes it is too early to be exact.<br><br>Therefore, the site could have minor negative effects on recreation activities as the PRoW might be out of use while diverted, and minerals extraction at the site could make nearby recreational assets less attractive for users.                                                                                                                                                                                              |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | 0        | The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| SA Objective and Sub Questions                                                                          | SA Score  | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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|                                                                                                         |           | <p>geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> <p>The site is more than 500m from any national sites of geological interest (SSSI) or Regionally Important Geological Sites. Therefore, the site is not expected to affect this objective.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <p>12. To protect conserve and enhance the historic environment, heritage assets and their setting.</p> | <p>-?</p> | <p>The south of the site is within 1km of six listed buildings located within Shuthonger, the closest being Twynning Farm including Walled Garden and Diary (Grade II) located approximately 200m away. The northern boundary of the site is within 600m of eight listed buildings located within Puckrup and Bow, the closest being the Bothy (Grade II) located approximately 500m away. The northern boundary is also within 1km of Towbury Hill Camp Scheduled Ancient Monument. The eastern boundary of the site is within 460m of Church End – Twynning Conservation Area and the listed buildings located within it.</p> <p>The GCC assessment notes that an enclosure or possible settlement site of unknown date is recorded on land west of the nurseries at the eastern end of site, and the course of a Roman road is probably present running north-south through the site. The assessment also notes that the impact of mineral extraction on the setting of listed buildings within Puckrup and Tywnning will be an issue to be addressed.</p> <p>Therefore, the site could have a minor negative effect on the setting of these assets, however, the effects would be uncertain as a more detailed assessment would be required once proposals are known.</p> <p>The GCC assessment notes that the archaeological interest in this site is as yet uncertain. Evidence from the surrounding landscape suggests the presence of early settlement. The assessment also notes that evaluation will be required to establish the extent and significance of any heritage assets present, and that the setting of adjacent listed buildings and conservation areas will require assessment.</p> |
| <p>13. To prevent flooding, in particular preventing inappropriate development in the floodplain.</p>   | <p>0</p>  | <p>The western half site is located within flood zones 2, 3a and 3b. However, as the site is a sand and gravel extraction site it is not expected to have an effect on flood risk areas, as sand and gravel workings are classed as water-compatible development and are potentially suitable for all flood zones including 3b, the functional floodplain.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

| SA Objective and Sub Questions                                                                                                                                                                                                                                                                        | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                                                                                                    | -        | The site covers a medium area (18ha) and is mainly within grade 3 agricultural land and could have a minor negative effect on protecting or enhancing soil/land quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                                                                              | 0        | The site is within 200m of the A38 but is not within 1km of an AQMA; therefore the site is expected to have a negligible impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                            | ?        | The site is not within a source protection zone but does overlay a mixture of Secondary A and B aquifers. However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water<br>c) sensitive lorry routing<br>d) the use of sustainable alternative fuels | +/-?     | This site is within 200m of the A38 and could therefore have a minor positive effect on reducing the impacts of lorry traffic on the environment and communities as traffic associated with the site should not have to travel far on local roads. However, the GCC assessment notes that there is no highways history for any of the parcels (A-D) of Redpools Farm. Although, the applicant has suggested that access at Parcel D onto the A38 could be used to access all resources (Parcels A-D) including land at Bow Farm (which the operator controls) in Worcestershire. It is believed that there is sufficient highways capacity but significant junction improvements would be required. This could lead to adverse effects on the local community and the environment, however, effects would be uncertain as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage. |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                        | ?        | At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

## SGTW2 (C) Redpools Farm

| SA Objective and Sub Questions                                                                                                                                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | 0        | <p>The site is not within 100m of any sensitive receptors. The closest sensitive receptor is Dadsley Cottage located approximately 170m to the north east of the site boundary, while the closest settlement, which is Bow, is located within 200m of the north of the site. Therefore, the site is expected to have no effects on the health of local residents and communities.</p> <p>In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | 0?       | <p>The site is not within 100m of any sensitive receptors. The closest sensitive receptor is Dadsley Cottage located approximately 170m to the north east of the site boundary, while the closest settlement, which is Bow, is located within 200m of the north of the site. Therefore, the site is expected to have no effects on the amenity of local communities.</p> <p>The site is not within 100m of any areas allocated for new residential development in the Gloucester, Cheltenham and Tewkesbury Draft Joint Core Strategy (October 2013), therefore there should not be any landuse conflict.</p> <p>There are no other existing mineral sites also within 1km of nearby settlements; therefore the site is not expected to have a cumulative effect on the amenity of the local community.</p> <p>The GCC assessment notes that there is no highways history for any of the parcels (A-D) of Redpools Farm. However, the applicant has suggested that access at Parcel D onto the A38 could be used to access all resources (Parcels A-D) including land at Bow Farm (which the operator controls) in Worcestershire. It is believed that there is sufficient highways capacity but significant junction improvements would be required. This could lead to effects on the local community from lorry traffic, however, effects would be uncertain as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage.</p> |
| 3. To promote sustainable economic development in Gloucestershire giving                                                                                                                  | 0        | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

| SA Objective and Sub Questions                                                                                                                                         | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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| opportunities to people from all social and ethnic backgrounds.                                                                                                        |          | own them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant.     |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | 0        | The site is not within an aerodrome safeguarding area and is therefore not expected to have an effect on this objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard from sterilisation by <u>non-mineral</u> development.                                                                                                                                                                                                                                                                                                                                                                                                       |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | -/+?     | The local wildlife sites: Ripple Brook; Ripple Lake & The Napps; Ripple Meadow; and River Severn (all in Worcestershire) are nearby. The GCC site assessment notes that the site is located on coastal & floodplain grazing marsh with hedgerows and rivers on the boundaries, therefore there is some potential for negative effects on biodiversity. However, due to the site's location within the Bushley SNA, there are opportunities for habitat creation and biodiversity enhancement in the longer term. Therefore, overall a mixed minor negative and positive effect is expected. These effects would be uncertain as the potential for effects will depend on the exact nature and design of the site and any restoration proposals, which would not be known until the planning application stage. |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                  | 0?       | The site is more than 1km away from any AONB and is therefore considered unlikely to have an effect on this asset. It is uncertain whether there would be effects on local landscape character, as impacts on the landscape will depend upon factors such as how prominent sites are in the landscape, the level of screening proposed, and the character of the surrounding landscape, which has not been assessed within the GCC assessment                                                                                                                                                                                                                                                                                                                                                                  |



| SA Objective and Sub Questions                                                                                                                                                                                     | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                                                                                                                                                                                                                    |          | at this stage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                          |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | -        | <p>The PRoW bridleway ATW/37/1 runs along the eastern boundary of the site. The GCC PRoW Team has identified that a diversion would be required. Furthermore, the GCC PRoW Team state that mineral developments could well offer opportunity of enhancement but at this stage and without checking on the ground or consulting the parishes it is too early to be exact.</p> <p>Therefore, the site could have minor negative effects on recreation activities as the PRoW might be out of use while diverted, and minerals extraction at the site could make nearby recreational assets less attractive for users.</p>                                                                                                                                    |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | 0        | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> <p>The site is more than 500m from any national sites of geological interest (SSSI) or Regionally Important Geological Sites. Therefore, the site is not expected to affect this objective.</p>                                                                                                                                              |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                   | -?       | <p>The south of the site is within 1km of six listed buildings located within Shuthonger, the closest being Twynning Farm including Walled Garden and Diary (Grade II) located approximately 570m away. The northern boundary of the site is within 700m of eight listed buildings located within Puckrup and Bow, the closest being Bow Bridge Cottage (Grade II) located approximately 260m away. The northern boundary is also within 600m of Towbury Hill Camp Scheduled Ancient Monument.</p> <p>The GCC assessment notes that the impact of mineral extraction on the setting of listed buildings within Puckrup will be an issue to be addressed.</p> <p>Therefore, the site could have a minor negative effect on the setting of these assets,</p> |

| SA Objective and Sub Questions                                                                                                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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|                                                                                                                                                                                                                          |          | <p>however, the effects would be uncertain as a more detailed assessment would be required once proposals are known.</p> <p>The GCC assessment notes that the archaeological interest in this site is as yet uncertain. Evidence from the surrounding landscape suggests the presence of early settlement. The assessment also notes that evaluation will be required to establish the extent and significance of any heritage assets present, and that the setting of adjacent listed buildings and conservation areas will require assessment.</p>                                                                     |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                           | 0        | The site is located within flood zones 2, 3a and 3b. However, as the site is a sand and gravel extraction site it is not expected to have an effect on flood risk areas, as sand and gravel workings are classed as water-compatible development and are potentially suitable for all flood zones including 3b, the functional floodplain.                                                                                                                                                                                                                                                                               |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                       | -        | The site covers a small area (3ha) and is entirely within grade 3 agricultural land and could have a minor negative effect on protecting or enhancing soil/land quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                 | 0        | The site is within 700m of the A38 but is not within 1km of an AQMA; therefore the site is expected to have a negligible impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.                                                                                                                                                                                                  |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                               | ?        | The site is not within a source protection zone but does overlay a Secondary A aquifer which may be capable of supporting water supplies at a local scale, and may form an important source of base flow to rivers. However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage.                                                            |
| 17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:<br>a) reducing the need to travel<br>b) promoting more sustainable means of transport e.g. by rail or water | +/-?     | This site is within 700m of the A38 and could therefore have a minor positive effect on reducing the impacts of lorry traffic on the environment and communities as traffic associated with the site should not have to travel far on local roads. However, the GCC assessment notes that there is no highways history for any of the parcels (A-D) of Redpools Farm. Although, the applicant has suggested that access at Parcel D onto the A38 could be used to access all resources (Parcels A-D) including land at Bow Farm (which the operator controls) in Worcestershire. It is believed that there is sufficient |

| SA Objective and Sub Questions                                            | SA Score | Justification                                                                                                                                                                                                                                                                                                                                     |
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| c) sensitive lorry routing<br>d) the use of sustainable alternative fuels |          | highways capacity but significant junction improvements would be required. This could lead to adverse effects on the local community and the environment, however, effects would be uncertain as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage. |
| 18. To reduce contributions to and to adapt to Climate Change.            | ?        | At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage.                                                                      |

## SGTW2 (D) Redpools Farm

| SA Objective                                                                                                                                                                              | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| 1. To promote sustainable development and sustainable communities and improve the health and wellbeing of people living and working in Gloucestershire as well as visitors to the County. | -?       | There is a property located just within the northeastern boundary of the site (Fairfield), in addition to two further properties that are located within 100m of the site boundary (Far End and Church End Nurseries). The nearest settlements are Church End (180m southeast), Puckrup (290m north) and Shuthonger (625m south). Therefore, the site could have a minor negative effect on health due to the potential for dust (PM10) to have a negative effect on the health of local residents and communities within close proximity to the site. However, this effect is uncertain, as the extent to which dust affects the nearby residents and settlement will depend on local circumstances such as the topography, nature of the landscape and the respective location of the site and sensitive receptors in relation to the prevailing wind direction. In addition, it is assumed that mineral extraction at any of the potential sites will be well operated and that dust avoidance and suppression measures implemented by the operators should be sufficient to avoid any potential health effects.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 2. To safeguard the amenity of local communities from the adverse impacts of mineral development.                                                                                         | -        | <p>There is a property located just within the northeastern boundary of the site (Fairfield), in addition to two further properties that are located within 100m of the site boundary (Far End and Church End Nurseries). The nearest settlements are Church End (180m southeast), Puckrup (290m north) and Shuthonger (625m south). Therefore, the site could have a minor negative effect on amenity for the nearby residents and settlement due to the potential noise and vibration associated with the mineral extraction operations. Noise and vibration effects may be less likely at this site than a site for crushed rock as sand and gravel rarely require blasting prior to excavation. However, the extent of these effects is very dependent on the scale of the operations and type of activities undertaken within the site as well as any potential mitigation measures proposed, which would be assessed at the planning application stage. While there may be some unavoidable short term effects due to noisy activities, it is assumed that mineral extraction at any of the potential sites will be well operated and that mitigation measures implemented should be sufficient to avoid any potential long term amenity effects.</p> <p>The site is not within 100m of any areas allocated for new residential development in the Gloucester, Cheltenham and Tewkesbury Draft Joint Core Strategy (October 2013), therefore there should not be any landuse conflict.</p> <p>As the nearby properties and settlements are not within 1km of any other existing mineral sites, there are no cumulative effects expected on the local community.</p> <p>The GCC assessment notes that there is no highways history for any of the parcels (A-</p> |

| SA Objective                                                                                                                                                           | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                                                                                                                                                                        |          | D) of Redpools Farm. However, the applicant has suggested that access at Parcel D onto the A38 could be used to access all resources (Parcels A-D) including land at Bow Farm (which the operator controls) in Worcestershire. It is believed that there is sufficient highways capacity but significant junction improvements would be required. This could lead to effects on the local community from lorry traffic, however, effects would be uncertain as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                                            |
| 3. To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.                               | 0        | No effect is likely as mineral sites are unlikely to present opportunities for spin off employment or other opportunities due to sites being self-served by the operators that own them.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 4. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.                                          | +        | All potential mineral sites regardless of their location are likely to have a minor positive effect on increasing employment levels. This is because all of the sites could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, which could result in a small amount of job creation for local people in both rural and urban areas. However, job creation from new mineral extraction sites is not expected to be significant within the Gloucestershire economy; and given that the overall number of mineral sites likely to be developed in the County will not be a large number each year, the total numbers of new employment opportunities likely to be provided within the County is not considered to be significant.                                                                                                                                                 |
| 5. To ensure that mineral sites do not compromise the safety of commercial or military aerodromes.                                                                     | 0        | The site is not within an aerodrome safeguarding area and is therefore not expected to have an effect on this objective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society. | 0        | New potential mineral sites would not be inappropriate development as they are contributing to extraction of mineral resources, not limiting the ability to extract resources, and would therefore have no effect on this objective, which primarily relates to areas being designated as Mineral Safeguarding and Consultation areas to safeguard mineral resources from sterilisation by non-mineral development.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 7. To protect, conserve and enhance biodiversity in Gloucestershire.                                                                                                   | -/+?     | There is one Key Wildlife Site within 1km of the site –Brockeridge Common (760m north). In addition, the GCC assessment states that four Local Wildlife Sites designated by Worcestershire (Ripple Lake & The Napps LWS, Ripple Meadow LWS, River Severn LWS, Ripple Brook LWS) are nearby. The GCC site assessment notes that the site is located on coastal & floodplain grazing marsh with hedgerows on the boundaries, therefore there is some potential for negative effects on biodiversity. However, due to the site's location within the Bushley SNA, there are opportunities for habitat creation and biodiversity enhancement in the longer term. Therefore, overall a mixed minor negative and positive effect is expected. These effects would be uncertain as the potential for effects will depend on the exact nature and design of the site and any restoration proposals, which would not be known until the planning application stage. |
| 8. To protect, conserve and enhance the landscape in Gloucestershire.                                                                                                  | 0?       | The site is more than 1km away from any AONB and is therefore considered unlikely to have an effect on this asset. It is uncertain whether there would be effects on local                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| SA Objective                                                                                                                                                                                                       | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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|                                                                                                                                                                                                                    |          | landscape character, as impacts on the landscape will depend upon factors such as how prominent sites are in the landscape, the level of screening proposed, and the character of the surrounding landscape, which has not been assessed within the GCC assessment at this stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 9. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity, and delivery of green infrastructure where possible. | +        | The restoration of minerals sites is increasingly adopting innovative practice and therefore, any minerals site could have positive effects on landscape character, biodiversity, amenity and recreation in the longer term, once restored. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.                                                                                                                                                                                                                                                                                                                                                              |
| 10. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets.                                                                                                                  | -        | The PRoW footpath ATW 37/1 crosses through the centre of the site. The GCC PRoW team has noted that diversion of this footpath would be required. Therefore, the site could have minor negative effects on recreation activities as the PRoW might be out of use while diverted, and minerals extraction at the site could make nearby recreational assets less attractive for users.                                                                                                                                                                                                                                                                                                                                                                                                          |
| 11. To protect conserve and enhance geodiversity in Gloucestershire.                                                                                                                                               | 0        | <p>The working of and restoration of minerals sites is increasingly adopting innovative practice and there may be opportunities to incorporate and preserve important geological features within the site. However, this would be very dependent on the exact nature, working and proposed design of the restoration of the minerals site, which would not be known until the planning application stage.</p> <p>The site is not located within 500m of a Regionally Important Geological Site (the nearest RIGS is Mythe Railway Cutting, 1.8km south). Therefore, the site is not expected to affect this objective.</p>                                                                                                                                                                     |
| 12. To protect conserve and enhance the historic environment, heritage assets and their setting.                                                                                                                   | -?       | <p>This site is located within 1km of Church End Conservation Area (290m east), and a Scheduled Monument at Towbury Hill Camp (685m northwest). In addition, there are 20 listed buildings within 1km of the site, one of which is grade II* listed (Church of St Mary Magdalene, 530m east), and the others are grade II listed. Therefore, the site could have a minor negative effect on the setting of these assets; however, the effects would be uncertain as a more detailed assessment would be required once proposals are known.</p> <p>Furthermore, the GCC assessment notes that the course of a Roman road is probably present running north-south through the site. Evaluation will be required to establish the extent and significance of any heritage assets on the site.</p> |
| 13. To prevent flooding, in particular preventing inappropriate development in the floodplain.                                                                                                                     | 0        | Although the western part of the site is within flood zones 2, 3a and 3b, as the site is a sand and gravel extraction site, it is not expected to have an effect on flood risk areas, as sand and gravel workings are classed as water-compatible development and are potentially suitable for all flood zones including 3b, the functional floodplain.                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 14. To protect and enhance soil / land quality in Gloucestershire.                                                                                                                                                 | -        | The site is mainly within grade 3 agricultural land, with an area of higher quality grade 2 agricultural land in the east of the site. As the site covers a medium area (9ha) the                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

| SA Objective                                                                                                                                                                                                                                                                                                                 | SA Score | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                              |          | negative effect on protecting or enhancing soil/land quality is expected to be minor.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 15. To protect and enhance air quality in Gloucestershire, helping to meet local, national and international objectives for air quality.                                                                                                                                                                                     | 0        | <p>The site is adjacent to the A38 that runs along the eastern boundary of the site, and the increased road transport resulting from the site is likely to travel a shorter distance along local roads, and result in fewer localised air pollution issues that would otherwise occur from travelling more slowly on local roads.</p> <p>The site is not within 1km of an AQMA; therefore the site is expected to have a negligible impact on protecting air quality, although this impact is very dependent on the type of mineral site, the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage.</p>                                                                                                                                                                                                                                                                                          |
| 16. To protect and enhance water quality and quantity in Gloucestershire, and to ensure that minerals development does not compromise sustainable sources of water supply.                                                                                                                                                   | ?        | <p>The site is not within a source protection zone but does overlay Secondary A and Secondary B aquifers which may be capable of supporting water supplies at a local scale, and may form an important source of base flow to rivers. However, at this stage in the planning process it is not possible to determine the impacts of minerals sites on water quality (surface or groundwater) or water use and efficiency as it will very much depend on the proposal (mineral type, design, method of working etc.), which would be assessed at the planning application stage.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <p>17. To reduce the adverse impacts of lorry traffic on the environment and communities through means such as:</p> <p>a) reducing the need to travel</p> <p>b) promoting more sustainable means of transport e.g. by rail or water</p> <p>c) sensitive lorry routing</p> <p>d) the use of sustainable alternative fuels</p> | +/-?     | <p>The site is adjacent to the A38 that runs along the eastern boundary of the site, and could therefore have a minor positive effect on reducing the impacts of lorry traffic on the environment and communities as traffic associated with the site should not have to travel far on local roads. However, the GCC assessment notes that there is no highways history for any of the parcels (A-D) of Redpools Farm. Although, the applicant has suggested that access at Parcel D onto the A38 could be used to access all resources (Parcels A-D) including land at Bow Farm (which the operator controls) in Worcestershire. It is believed that there is sufficient highways capacity but significant junction improvements would be required. This could lead to adverse effects on the local community and the environment, however, effects would be uncertain as the potential for effects will depend on the exact nature and design of the site, which would not be known until the planning application stage.</p> |
| 18. To reduce contributions to and to adapt to Climate Change.                                                                                                                                                                                                                                                               | ?        | <p>At this stage in the planning process it is not possible to determine the impacts of minerals sites on their ability to reduce contributions to and to adapt to climate change as it will depend on the proposal, which would be assessed at the planning application stage.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |