



Buckinghamshire Minerals and Waste Local Development Framework

Minerals Development Plan Document:

Sustainability Appraisal Report (incorporating Strategic Environmental Assessment)

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**Buckinghamshire Minerals and Waste Local Development Framework
Minerals Development Plan Document: Sustainability Appraisal**

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Abbreviations used in this report

AONB	Area of Outstanding Natural Beauty - an area designated under statute, where the primary objective is the conservation and enhancement of natural beauty.
DPD	Development Plan Document - a type of LDD (see below) which has statutory backing, the policies of which take precedence in making planning decisions
LDD	Local Development Documents - the documents making up a Local Development Framework, consisting of statutory LDDs and non-statutory Supplementary Planning Documents
LDS	Local Development Scheme - a timetable and project plan for the production of one planning authority's LDDs.
MWDF	Minerals and Waste Development Framework (sometimes Minerals and Waste Local Development Framework, MWLDF) - a collection of Local Development Documents setting out policies on minerals and waste issues
ODPM/DCLG	Office of the Deputy Prime Minister / Department for Communities and Local Government - the successive government ministries responsible for planning in recent years. (DCLG is now generally referred to simply as CLG, or 'Communities and Local Government')
PPS	Planning Policy Statement - a statement of the government's planning policy on a particular topic. They replace Planning Policy Guidance documents (PPGs), some of which however still remain in force
SA	Sustainability Appraisal (see paragraphs 1.5 to 1.17)
SEA	Strategic Environmental Assessment (see paragraphs 1.5 to 1.8)

Non Technical Summary

Introduction

This is a non-technical summary of the report on the Sustainability Appraisal, incorporating Strategic Environment Assessment, of the Minerals Development Plan Document (DPD) for the Buckinghamshire Minerals and Waste Local Development Framework (MWLDF). The full report has been prepared for publication alongside the Minerals DPD 'Preferred Options' document.

The Buckinghamshire MWLDF is being prepared to replace the recently adopted Minerals and Waste Local Plan, in accordance with the new arrangements for development planning introduced by the Planning and Compulsory Purchase Act 2004. It will contain the following key Development Plan Documents (DPDs):

- **The Minerals and Waste Core Strategy** – will set out the strategic vision for minerals and waste development throughout Buckinghamshire. The strategic policies in this document will review and update the core minerals and waste policies contained within the recently adopted Minerals and Waste Local Plan.
- **The Waste Development Plan Document (Waste DPD)** – will identify preferred areas for development of waste management facilities as well as providing detailed development control policies for assessing waste planning applications within Buckinghamshire.
- **The Minerals Development Plan Document (Minerals DPD)** – will set out policies related to maintenance of a landbank of sand and gravel and ensuring there is an appropriate number of preferred areas for minerals development in the County.

Sustainability Appraisal (SA) of new development plan documents is required under the UK Government's Planning and Compulsory Purchase Act 2004. Under the EU SEA Directive (2001/42/EC), the DPDs must also be subject to Strategic Environmental Assessment (SEA). The purpose of SA is "to promote sustainable development through the integration of social, environmental and economic considerations into the preparation of development plan documents", while the objective of SEA 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".

Clearly there is a need for integration between SA and SEA, and UK Government guidance recommends that the two processes be carried out as a single exercise. The County Council is following this combined approach to SA and SEA in its work on the MWDF. For this reason, throughout this Report, where reference is made to SA, it denotes SA incorporating SEA.

The SA and SEA processes are intended to be transparent and to allow opportunity for involvement of certain 'key players' at the main stages, as well as involvement by the general public. Three environmental organisations - the Environment Agency, Natural England, and English Heritage - are identified in legislation as statutory consultees throughout the process, but consultation is not limited to these organisations.

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Purpose of this Report

The main outcome of the SA process is the Sustainability Appraisal Report. The purpose of the present report is to record the assessment of the Minerals DPD Preferred Options document, and to identify the likely significant effects on sustainable development if this option were to form the basis of the final version of the DPD. The report will be revised as necessary if changes are made to the preferred option before the DPD is submitted for formal approval.

The Sustainability Appraisal Report is being made available for comment alongside the submission DPDs. Following consultation, the responses received will be taken into account, and any changes made to the DPDs or the SA as a result will be identified.

This **non-technical summary** concentrates on summarising the main findings and conclusions of the Sustainability Appraisal Report.

Context of the Sustainability Appraisal

The study area for this SA is the entire administrative county of Buckinghamshire. This excludes the city of Milton Keynes.

The county has an area of around 150,000 hectares, and is generally rural in nature. Much of the southern part of the county lies in the Metropolitan Green Belt, and a major feature is the Chilterns Area of Outstanding Natural Beauty, also in the south of the county. There are also two Special Areas of Conservation (SACs) in the county, which are of international importance for their wildlife interest.

There are active workings and permitted reserves of the following minerals in Buckinghamshire:

- Sand and gravel (active workings and permitted reserves)
- Greensand (permitted reserves only - no current workings)
- Chalk (permitted reserves only - no current workings), and
- Brickclay (active workings and permitted reserves on two sites in the Chilterns AONB).

Sand and gravel workings and permitted reserves are mainly found in the south east of Buckinghamshire, roughly south of a line drawn between Marlow and Chalfont St Giles. There is one permitted greensand working in the north east of the county at Rammamere Heath near Great Brickhill, and two chalk quarries in the east of the county at Ivinghoe Aston and Pitstone. Permitted brickclay reserves are found at six locations - three in the area north-west of Aylesbury (Galvert, Newton Longville, and Woodham), and three in the east of the county (Dundridge Manor; Meadhams Farm; and Froghall, all between Buckland Common in the north and Chalfont St Giles in the south).

The SA process has identified a number of opportunities and challenges for Buckinghamshire over the coming years and these are presented in Table 2.2 of the main report. These should be taken into account in the development of the DPDs. Some of the opportunities can also be considered as challenges, for example, the existence of the AONB is recorded as an 'opportunity' because it is a positive aspect of the county's environment; but at the same time it is recognised that it may have negative impacts in searching for, or assessing, potential new sites for minerals development.

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Structure of the Sustainability Report

The full Sustainability Report has two main sections. Part 1 explains the background to SA and SEA, gives details of the current environmental 'baseline' in the county, and describes the way in which the SA/SEA has been carried out. Part 1 also includes details of the 'sustainability objectives' which have been used in the assessment. These are described more fully below.

Part 2 of the report contains the results of the various assessments that have been carried out. These assessments have considered whether the sustainability objectives are consistent or compatible with each other, and then go on to assess how the following aspects of the Preferred Options document perform against the sustainability objectives:

- The Council's proposed minerals planning objectives
- The issues and options raised by the Council in a consultation earlier this year
- The way in which potential future mineral extraction sites were identified and assessed
- The sites that the Council is now putting forward as Preferred Areas, Areas Subject to Phasing, and Safeguarded Areas
- The Council's proposed development control policies.

Part 2 also includes proposals for the way in which the contribution of the DPD towards achieving the sustainability objectives might be monitored.

The findings of each of these assessments are summarised below.

Methodology of Assessment

In order to satisfy the requirements of Sustainability Appraisal and the SEA Directive, the prediction of environmental, social and economic effects of the Buckinghamshire Minerals DPD involved:

- identifying the changes to the environmental, social and economic baseline which are likely to arise from the DPD;
- describing their likely nature, magnitude, timing and duration, along with any secondary, cumulative or combined effects that are predicted;
- evaluating the significance of the predicted environmental, social and economic effects.

The Issues and Options and Preferred Options were assessed against a set of sustainability objectives, or 'SA objectives' (see below), using professional judgement to assess the performance of each of the aspects listed above. Where the assessment has produced negative results, the relevant aspect may need to be adjusted to improve the contribution of the DPD to meeting the SA objectives. However, adjustment is not always required when a negative score is awarded, as some negative scores may be justifiable on a balance of all sustainability considerations.

Sustainability Objectives

In order to provide a means by which the social, environmental, and economic effects of the Minerals and Waste Development Framework Documents can be described, analysed and compared, a set of sustainability objectives has been established for use in the SA/SEA process. 23 objectives were decided on, referred to as the SA objectives. They are listed below. These objectives have been prepared for use with all three of the Development Plan Documents within the Minerals and Waste Development Framework. Statutory consultees and others were consulted on the objectives as part of

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the Scoping Report consultation and amendments were made to the original list in light of comments received.

SA Objectives used in the assessments

Topic	Number	SA Objective
Air	SA1	To protect and enhance air quality
Climatic Factors	SA2	To minimise impacts on climate change
Population and Human Health	SA3	To protect the living conditions and amenities of local residents from the adverse effects of mineral and/or waste development
	SA4	To minimise adverse impacts on human health
Biodiversity, Flora and Fauna	SA5	To protect and enhance biodiversity and sites of geological interest
Cultural Heritage	SA6	To conserve and where appropriate enhance the historic environment
Soil	SA7	To conserve soil resources and quality
Landscape and Townscape	SA8	To conserve and enhance the quality and distinctiveness of landscapes and townscapes, in particular within the AONB
Material Assets	SA9	To avoid the wasteful use of natural resources and to encourage the use of alternatives to primary materials
Water	SA10	To protect water quality and water resources
	SA11	Not to increase and where possible reduce flood risk
Minerals	SA12	To conserve mineral resources and prevent their sterilisation
	SA13	To promote the effective restoration and appropriate after use of minerals and waste sites
Waste	SA14	To contribute positively to the sustainable management of waste (defined as the minimisation of the amount of waste requiring treatment, the movement of the management of waste up the waste hierarchy, and delivery of national and regional policies regarding waste self sufficiency).
Energy Generation and Use	SA15	To secure the efficient use of energy and to increase the production of renewable energy from waste
Transport and Access	SA16	To minimise the impacts of minerals and waste traffic on residents, communities and the environment
	SA17	To reduce reliance on road travel
Social	SA18	To enable today's population to meet its needs for minerals and waste facilities, while maintaining the ability of future generations to meet their needs
	SA19	To maximise community participation in and responsibility for the provision of minerals and waste services
	SA20	To protect, enhance and create (where possible) resources valued for recreation, including public rights of way
Economic	SA21	To use sound science responsibly and to encourage innovation
	SA22	To avoid significant adverse impacts on land and premises in employment use
	SA23	To maintain or improve the conditions that enable efficient growth and investment in the mineral and waste industries

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Results of Assessments

The results of the assessments are presented in tabular format, with each item assessed being assigned a score against each of the SA objectives. Comments are given on these scores where appropriate, and these are discussed in the main text of the report.

The scoring was based on a descending series of ticks and crosses with three ticks representing a highly beneficial effect on the SA objective through to three crosses representative of a highly adverse effect on the SA objective. Between these scores two or one ticks or crosses represented moderate or minor positive or negative effects. There were also instances where it was determined that there would be a neutral effect on the SA objective or that the item was not applicable, in which case a score of 'N' was given. Where it was considered that a positive impact would depend on the way in which the DPD, or a particular part of it, was mitigated or implemented, a score of 'D' was ascribed.

Conclusions drawn from the main individual components of the SA process are documented in the main report and summarised below:

Issues and Options Assessment

Nine issues were put forward in the Issues and Options Report, covering the topics which the County Council considered to need addressing in the preparation of the Minerals DPD. These were derived by the County Council from their knowledge of the principal issues to which minerals give rise in the county. They took the form of a series of generally expressed, relatively discrete and freestanding questions.

The generality of many of the questions in the Report, together with their relatively narrow subject-matter, meant that many of the options appraised at this stage of the SA process gave rise to neutral or 'D' scores. That is considered to be a reasonable outcome, which does not call into question the soundness of the approach adopted in the Issues and Options Report, nor the comprehensiveness of its scope.

The great majority of the options raised represented genuine alternative choices to be made in the formulation of the Minerals DPD. In three instances (Issue 3 dealing with the defining of Mineral Safeguarding Areas and Mineral Consultation Areas; Issue 8 dealing with sites for C & D waste recycling; and Issue 9 dealing with the identification of sites for new rail depots and wharves), the topic has not been taken forward directly into the Preferred Options document. The assessment notes that no express reason for this is given in that document.

In one case, regarding the end-date of the DPD (Issue 1), the approach selected in the Preferred Options document does not match the option that performed best in the SA; but in this case none of the options performed badly, and the option selected by the County Council is considered satisfactory in terms of the SA objectives. For all the other issues, the options selected for the Preferred Options document are considered to accord with the option that performed best in the sustainability appraisal.

Assessment of Site Selection Methodology

The County Council commissioned consultants to carry out a comparative assessment of ten potential mineral extraction sites in the county, based on sites that had been suggested at previous Minerals (or Minerals and Waste) Local Plan Inquiries, or which minerals operators had asked to be considered for

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inclusion in future Mineral Development Documents. One of these sites was divided into two parcels, so in practice a total of eleven potential locations were examined.

In this assessment, which was separate from the formal SA/SEA process, the sites were ranked in accordance with the assessed suitability for minerals extraction. In the Preferred Options document, this ranking has been used as the basis of deciding whether a site should be a Preferred Area, and Area Subject to Phasing, or a Safeguarded Area.

The sustainability appraisal of the site selection methodology indicates that it has beneficial effects on sustainability. This is largely because the topics and issues considered in the site assessments derived directly from the 23 objectives, while those assessments also took account of weightings and priorities of those objectives agreed by the County Council.

The SA/SEA suggests that in future revisions of the Minerals DPD, the site selection methodology should, if possible, incorporate more information regarding climate change, community participation and sound science and innovation, to make sure that these aspects of sustainability are addressed in more detail.

Assessment of Preferred Areas, Areas Subject to Phasing, and Safeguarded Areas

The 11 sites referred to above are all included in the Minerals DPD Preferred Options Report as either Preferred Areas, Areas Subject to Phasing, and Safeguarded Areas. A sustainability appraisal was carried out for each of the eleven areas.

The assessment of these sites showed that on the whole they performed well against the majority of the SA objectives, although all sites performed negatively against the objectives relating to air quality, climate change and reduce reliance on road travel respectively scored negatively across the board, because all are expected to be accessed by road rather than by any more sustainable method of transport.

The conclusions of this assessment did not always exactly match those of the comparative assessment referred to above. This was because the comparative assessment gave different weightings to different SA objectives, whereas the SA/SEA treated each of the objectives equally.

Assessment of Policies

The Minerals DPD Preferred Options Report includes five development control policies for the county. In the SA/SEA, these policies generally scored positively against the SA objectives. This scoring benefited from the fact that many of the policies require proposals to accord with policies saved from the Minerals and Waste Local Plan, policies within the emerging LDF, and other requirements that help deliver and promote sustainable development. The effect is that any proposals would be strictly controlled by existing and emerging development control policies, reducing their likely impacts.

On the whole the policies were awarded positive scores against the objectives that were applicable. Where adverse scores were recorded these were no worse than slightly adverse, and in all cases are complemented with a positive score, generally greater in value. The overall assessment was therefore considered to be positive.

Policy MDPD3 was slightly different from the others, because it is a safeguarding policy rather than a land-use policy. Many of the SA objectives were considered to be 'not applicable' to such a policy.

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Future Monitoring

The SEA Directive requires that the significant environmental effects of implementing plans or programmes are monitored in order to identify any unforeseen adverse effects and to ensure remedial action can be taken. The SA Report suggests indicators linked to the SA objectives which might be used to monitor the achievement of each of those objectives.

The Report also provides an indication of the availability of data relevant to each of the indicators proposed. This distinguishes between data required on a county-wide basis (for monitoring the overall effectiveness of the Plan on a county-wide basis), and that required on a site-specific basis (for monitoring the more direct impacts of individual schemes deriving from the new Minerals DPD).

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Part 1 Introduction and Context

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1 Introduction

Purpose of this Report

- 1.1 This document is the Sustainability Appraisal Report of the Minerals DPD Preferred Options document and therefore records the results of the Sustainability Appraisal (SA) incorporating Strategic Environment Assessment (SEA) carried out. In so doing, it considers aspects of the evolution of that document, as well as the document itself. Its scope covers:
- A compatibility study of the SA objectives with each other;
 - A compatibility study of the plan objectives with SA objectives;
 - An assessment of the issues and options set out in the Issues and Options Report against the SA objectives;
 - An assessment against the SA objectives of the Council's preferred options, including the suggested preferred areas and the method by which they were selected, and the DPD's proposed development control policies.
- 1.2 This SA Report is being made available for comment by local communities and other stakeholders. It will be revised in the light of comments received both on the SA Report and on the Preferred Options document to which it relates.

Background to the Buckinghamshire Minerals and Waste Local Development Framework

- 1.3 Buckinghamshire County Council is currently preparing a Minerals and Waste Local Development Framework (MWLDF) to replace the recently adopted Minerals and Waste Local Plan in accordance with the new arrangements for development planning introduced by the Planning and Compulsory Purchase Act 2004. The Council's aim is to submit a series of Development Plan Documents (DPDs) to the Secretary of State during 2008.
- 1.4 The Buckinghamshire MWLDF will contain the following key DPDs as described in the Buckinghamshire Minerals and Waste Local Development Scheme (LDS) 2006-2009¹:
- **The Minerals and Waste Core Strategy (MWCS)** – This document will set out the strategic vision for minerals and waste development throughout Buckinghamshire. The strategic policies in this document will review and update the core minerals and waste policies contained within the recently adopted Minerals and Waste Local Plan. This document is programmed to be submitted in the spring of 2008 and adopted before the end of that year.
 - **The Waste Development Plan Document (Waste DPD)** – This document will identify preferred areas for development of waste management facilities as well as providing detailed development control policies for assessing waste planning applications within Buckinghamshire. It is expected to be submitted to the Secretary of State before the end of 2008, with an estimated date for adoption before the end of 2009.

¹ The programmes for the three development plan documents have been reviewed by the County Council since the approval of the LDS. The dates given here reflect the Council's current targets.

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- **The Minerals Development Plan Document (Minerals DPD)** – This document will set out policies related to maintenance of a landbank of sand and gravel and ensuring there is an appropriate number of preferred areas for minerals development in the County. It is expected to be submitted during 2008 and adopted before the end of 2009. A more detailed programme for this DPD can be seen in paragraph 1.9 below.

Background to Sustainability Appraisal

- 1.5 The above DPDs are subject to Sustainability Appraisal (SA) under the UK Government's Planning and Compulsory Purchase Act 2004. Under the EU SEA Directive (2001/42/EC), the DPDs are also subject to Strategic Environmental Assessment (SEA). The purpose of SA is "to promote sustainable development through the integration of social, environmental and economic considerations into the preparation of development plan documents"², while the objective of SEA 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"³.
- 1.6 SA and SEA form part of an integrated process of plan appraisal, and the UK Government has produced guidance which recommends that the two processes be carried out as a single exercise. The County Council is following this combined approach to SA and SEA in its work on the Minerals and Waste Local Development Framework. For this reason, throughout this Report, where reference is made to SA, it denotes SA incorporating SEA.
- 1.7 SA and SEA are processes carried out separately from the preparation of the DPDs themselves, but there is required to be close integration between the two exercises, with each informing the other. In particular, the plans' proposed policies, and the various options that are considered as part of plan preparation, are required to be tested through the SA and SEA processes to ensure their soundness in terms of sustainable development objectives.
- 1.8 The SA and SEA processes are intended to be transparent and to allow opportunity for involvement of certain 'key players' at the main stages, as well as involvement by the general public. Three environmental organisations - the Environment Agency, Natural England, and English Heritage - are identified in legislation as statutory consultees throughout the process, but consultation is not limited to these organisations.

SA/SEA and the process of preparing Development Plan Documents

- 1.9 To satisfy the relevant statutory Regulations⁴, the preparation of a DPD involves a number of key stages:
- Early in the process of DPD-preparation, the Authority preparing the Plan must undertake 'pre-submission consultation' in accordance with Regulation 25 of the

² *Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents*, ODPM 2005, paragraph 1.1

³ EU Directive 2001/42/EC *On the assessment of the effects of certain plans and programmes on the environment*, Article 1

⁴ The Town & Country Planning (Local Development) (England) Regulations 2004

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statutory Regulations. This consists of consultation with communities and relevant stakeholders on a range of 'issues and options' relevant to the eventual content of the DPD. For the Bucks Minerals DPD, this consultation took place in February and March 2007, and was supported by an 'Issues and Options Consultation Report'.

- After considering the responses to the 'Regulation 25 consultation', the Authority must undertake 'pre-submission consultation' in accordance with Regulation 26. This involves the Authority setting out and consulting upon its 'preferred options' for the policy direction and site-specific proposals of the DPD. A formal Sustainability Appraisal report must accompany this consultation. For the Bucks Minerals DPD, the 'Regulation 26 Report', or 'Preferred Options document', is to be issued in autumn 2007. The present report is the SA Report which accompanies the Preferred Options document.
- The Authority must assess the responses made to the Preferred Options document and SA Report, and prepare the 'submission DPD' and any amendments to the SA Report. These documents are then submitted to the Secretary of State. The submission version of the DPD is then subject to independent examination, with the final SA Report as a key supporting document. For the Bucks Minerals DPD, the current programme envisages submission to the Secretary of State in December 2008, with the independent examination being held in mid-2009.
- The independent examination considers the overall 'soundness' of the submitted DPD, having regard to a number of tests laid down by government. The findings of the examination are binding on the plan-making Authority; if the DPD is found to be sound, it can be adopted immediately. For the Bucks Minerals DPD, it is hoped that this stage will be reached by the end of 2009.

1.10 Sustainability Appraisal and Strategic Environmental Assessment is an iterative process, undertaken alongside the preparation of the DPD. It is intended to inform, and be informed by, decisions taken by the Council on the scope and content of the DPD. It thus involves visiting and revisiting issues throughout the preparation of the DPD, and advising the plan-making Authority with a view to moving the DPD ever closer towards the achievement of a plan which meets all its sustainability objectives in the most appropriate way.

Stages of the SA Process

1.11 In keeping with the requirements of the 2004 Regulations and the SEA Directive, the SA of the Buckinghamshire Minerals and Waste DPDs is being undertaken in the following key stages:

Stage A Setting the Context, establishing the baseline and deciding on the scope

Stage B Developing options and assessing effects of the DPDs

Stage C Preparing the SA Reports

Stage D Consultation

Stage E Monitoring

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- 1.12 **Stage A - Setting the Context, establishing the baseline and deciding on the scope:** This stage includes reviewing other relevant plans and programmes to take account of relationships between the DPDs and policies/objectives in other plans and programmes which may influence them. It also includes collation of baseline information to provide the context for the appraisal and a basis for predicting and monitoring effects of the DPDs. It allows for any gaps in the baseline data to be identified at an early stage, key problems and opportunities to be identified, and an appraisal framework to be developed (including the sustainability objectives against which the DPDs will be assessed).
- 1.13 **Stage B - Developing Options and assessing the effects of the DPDs:** The SEA Directive requires the assessment of reasonable alternatives taking into account the objectives and the geographical scope of the plan being assessed; it also requires information to be provided outlining reasons for selecting the alternatives dealt with. During this stage the effects of the DPD strategic options are assessed in broad terms, and then the effects of the preferred options, policies and proposals are assessed in more detail. The purpose of this stage is to demonstrate that the sustainability effects of the DPDs have been considered and mitigation measures proposed where adverse effects are identified.
- 1.14 **Stage C - Preparing the Sustainability Appraisal Report:** The Sustainability Appraisal Report, incorporating an Environmental Report as required by the SEA Directive, is the key deliverable of the SA. The purpose of the report is to illustrate the process undertaken, to allow for consultation, and to demonstrate compliance with the SEA Directive.
- 1.15 **Stage D - Consultation:** The Sustainability Appraisal Report will be made available for comment alongside the submission DPDs. Following consultation, the responses received will be taken into account, and any changes made to the DPDs or the SA as a result will be identified.
- 1.16 **Stage E - Monitoring:** Monitoring allows the actual significant effects of the DPDs to be tested against those predicted in the SA. Where gaps in baseline information have been identified at Stage A, monitoring also helps in collection of additional baseline information for use in future SAs. Proposals for monitoring will be developed throughout the SA and more specifically during baseline collection and impact prediction. A monitoring framework will be proposed in the final SA Report.
- 1.17 Stage A has already been completed and a single scoping report was prepared in June 2006 which sets the context and the baseline for the County and outlines the appraisal framework and scope. This applies to all three of the DPDs in the Buckinghamshire MWLDF. The scoping report was consulted on by four statutory environmental consultees and a skeleton version was also prepared and sent for comment to relevant organisations. Thereafter, work on the SA of the three DPDs has proceeded separately, to match the differing timetables of the three plans, and separate SA reports will be produced for each.

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Structure of the Sustainability Appraisal Report

1.18 This report is structured as follows:

- Chapter 1 introduces the report, and describes the spatial, temporal and technical scope of the SA, as well as the key stages of the SA process;
- Chapter 2 sets the context of the SA in relation to relevant plans and programmes and relevant baseline information, and identifies the main sustainability opportunities and challenges for Buckinghamshire;
- Chapter 3 sets out the SA objectives to be considered during the assessment phase;
- Chapter 4 sets out the approach and methodology that was applied to assess the effects of the minerals DPD on sustainability;
- Chapters 5 to 12 show the results of the assessment of the issues and options and the preferred options reports. It also includes a compatibility matrix of the SA objectives and plan objectives.
- Chapters 13 and 14 suggest measures for monitoring and draw conclusions from the assessment.

1.19 Supporting information is included in appendices to this report.

Relationship with the SEA Directive

1.20 Although SA and SEA of the Waste DPD have been undertaken as a single process, the SEA Directive requires certain specific matters to have been demonstrably assessed. Key requirements for the SEA are that it should

- provide information on the likely significant effects of a proposed plan on the environment (SEA Directive Annex 1(f))
- provide an outline of the reasons for selecting the alternatives dealt with (SEA Directive Annex 1(h)), and
- provide the measures envisaged to prevent, reduce and so far as possible offset any significant adverse effects on the environment that would result from implementing the plan.

1.21 The present Report addresses these issues respectively as follows:

- The SA objectives in Chapter 3 of this Report have been designed to cover the full range of environmental issues identified in the SEA Directive. These objectives have been used as the basis of all the assessments described in this report, and conclusions have been drawn on the extent to which these objectives would, or would not, be met by the proposals of the Preferred Options document. The principal relevant sections of this report are Chapters 6 to 12, which present the conclusions of the assessments in matrix form, with written commentary.

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- The alternatives considered in this report are the sites identified on Map 2 of the Issues and Options document, and referred to further in Chapter 5 of the Preferred Options document. They are either sites which had been considered as possible preferred areas in previous minerals plans, but which had been rejected in favour of sites which, at the time, were judged more suitable; or else sites suggested by third parties in earlier consultations associated with the development of the MWDF.
- The SA Report includes suggestions for mitigating the possible adverse environmental effects of the policies and proposals in the Preferred Options document - see Chapters 11 and 12. The assessment in this SA/SEA therefore has the effect of testing that final selection in terms specifically of the DPD's sustainability objectives.

2 Context of the SA

The Study Area

- 2.1 The study area for the SA of the Buckinghamshire Minerals and Waste DPDs corresponds with the administrative boundaries of Buckinghamshire, which can be seen in **Map 1** over the page. It is situated in the South East of England, and covers four districts: Aylesbury Vale, Chiltern, South Bucks, and Wycombe.
- 2.2 The County of Buckinghamshire, covering a total area of 150,000 ha is generally rural in nature. Much of the southern part of the county lies in the Metropolitan Green Belt, and a major feature is the Chilterns Area of Outstanding Natural Beauty, also in the south of the County. There are also two Special Areas of Conservation (SACs) in the County.
- 2.3 Buckinghamshire is well served by roads, with good links to London. Three motorways run through the County: the M4, M40, and M25. Other major roads include the A41, A413, and A418. The largest towns are High Wycombe and Aylesbury, which are the major centres of population. Other important towns in Buckinghamshire include: Amersham, Beaconsfield, Buckingham, Chesham, Gerrards Cross, Marlow, and Princes Risborough. The total population of Buckinghamshire is approximately 480,000 people.
- 2.4 In terms of minerals, according to the Buckinghamshire Minerals and Waste Local Plan 2004-2016, there are active workings and permitted reserves of the following minerals in Buckinghamshire:
- Sand and gravel (active workings and permitted reserves)
 - Greensand (permitted reserves only - no current workings)
 - Chalk (permitted reserves only - no current workings), and
 - Brickclay (active workings and permitted reserves on two sites in the Chilterns AONB).
- 2.5 Sand and gravel workings and permitted reserves are mainly found in the south east of Buckinghamshire, roughly south of a line drawn between Marlow and Chalfont St Giles. According to the latest version of the Minerals and Waste Local Plan, there is one permitted greensand working in the north east of Buckinghamshire at Rammamere Heath near Great Brickhill, and two chalk quarries in the east of Buckinghamshire at Ivinghoe Aston and Pitstone.
- 2.6 Permitted brickclay reserves are found at six locations - three in the north-west (Calvert, Newton Longville, and Woodham, north-west of Aylesbury). Three active brickclay workings are located in the east (Dundridge Manor; Meadhams Farm; and Froghall, all between Buckland Common in the north and Chalfont St Giles in the south).

Map 1 Map of Buckinghamshire showing major administrative divisions

Relevant Plans and Programmes

- 2.7 A comprehensive review of relevant plans and programmes at international, European, national, regional and local level has been undertaken as part of the scoping process (Stage A) in order to identify the principal ways in which other plans and programmes may influence the approach and content of the MWLDF.
- 2.8 **Table 2.1** below provides a list of relevant plans and programmes that have been reviewed.

Table 2.1 Relevant Plans and Programmes

International and European
The Johannesburg Summit on Sustainable Development, 2002
UN Framework Convention on Climate Change, 1994
EU Sustainable Development Strategy, 2001
EU Waste Framework Directive (75/442/EEC as amended)
EU Landfill Directive (99/31/EC)
EU Habitats Directive (92/43/EEC)
EU Hazardous Waste Directive: 91/689/EEC (HWD), as amended by 94/31/EC
EU Water Framework Directive: (2000/60/EC)

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National
Securing the Future – UK Sustainable Development Strategy, 2005
Wildlife and Countryside Act, 1981
Waste Strategy 2000 (including changes made in 2005)
Climate Change: The UK Programme, 2006
Air Quality Strategy for the UK, 1997
UK Biodiversity Action Plan, 1992
PPS1 Delivering sustainable development, 2005
PPG2 Green Belts, 1995 (as amended)
PPS7 Sustainable development in rural areas, 2004
PPS9 Biodiversity and geological conservation, 2005
PPS10 Planning for sustainable waste management, 2005
PPS12 Local development frameworks, 2004
PPG15 Planning and the historic environment, 1994
PPG16 Archaeology and planning, 1990
PPG17 Planning and Open Space, Sport and Recreation, 2002
PPS23 Planning and pollution control, 2004
PPG24 Planning and noise, 1994
PPS25 Development and Flood Risk, 2006
MPS1 Planning and Minerals, 2006
MPS2 Controlling and mitigating the environmental effects of mineral extraction in England, 2005
MPS2 Controlling and mitigating the environmental effects of mineral extraction in England, Annex 1: Dust, 2005
MPS2 Controlling and mitigating the environmental effects of mineral extraction in England, Annex 1: Noise, 2005
MPG7 Reclamation of mineral workings, 1996
National and regional guidelines for aggregates provision in England 2001-2016 (2003)
Regional
Draft South East Plan (Regional Spatial Strategy), 2006

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Regional Planning Guidance for the South East (RPG9), 2001 amended June 2006
South East Regional Waste Management Strategy, 2005
South East Regional Mineral Strategy, 2005 (this and the preceding item have now been incorporated in the RPG9 amendments approved in June 2006)
The South East England Regional Assembly Sustainable Development Framework, 2001
Milton Keynes and South Midlands Sub-Regional Growth Strategy, 2005 (sub-regional)
County
Buckinghamshire County Structure Plan 1991-2011, adopted 1996
Buckinghamshire Minerals and Waste Local Plan 2004-2016, adopted 2006
Buckinghamshire Local Transport Plan 2001-2006
Buckinghamshire Community Strategy (Buckinghamshire Community Plan 2005-2008)
A Better Quality of Life in Buckinghamshire (Local Agenda 21 Strategy), 2001
Waste Strategy for Buckinghamshire 2001-2021
The Buckinghamshire Landscape Plan
Buckinghamshire Biodiversity Action Plan, 2000-2010
Other
Chilterns AONB Management Plan, 2002-2007

- 2.9 **Appendix A** provides a detailed assessment of the documents and identifies key objectives/issues from these documents that should be taken on board in the MWLDF.
- 2.10 National policies were found to steer much of the content of the DPDs for the MWLDF. Current national planning guidance is mainly a combination of Planning Policy Statements (PPSs) and Minerals Policy Statements (MPSs), together with some older Planning Policy Guidance Notes (PPGs).
- 2.11 Particularly relevant to the Waste DPD is MPS1 'Planning and Minerals', which sets out the government's key overarching policies and principles applying to all minerals, and includes an Annex dealing specifically with planning for aggregates. A Practice Guide accompanying MPS1, providing practical advice on a range of issues relevant to planning for minerals, was issued by DCLG in June 2006.
- 2.12 Minerals Planning Statement 2 (MPS2), on the need to minimise the adverse environmental effects of mineral extraction, is also of particular importance.
- 2.13 In addition, the associated regional and sub-regional apportionments of aggregates provision contained in national guidance and in the RPG/RSS for the South East minerals are of critical

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importance to the Minerals DPD, as sand and gravel is the principal mineral extracted in Buckinghamshire.

Existing Baseline Conditions and Future Trends

2.14 This section describes the current baseline situation in Buckinghamshire. The level of detail on the data collected varies, but has been pitched at a level considered appropriate for use in the assessment process. It is acknowledged that further information may become available during the consultation process. Any additional information will be documented in the Sustainability Appraisal Reports.

2.15 **Appendix B** shows the baseline data, and lists indicators and targets. It also comments on the quality of the available data and any trends which that data reveals, and identifies gaps in the availability of data that might assist the SA process. The data in the Appendix covers the topics listed in the SEA Directive, which are:

- Air
- Climatic Factors
- Population and Human Health
- Biodiversity, Flora and Fauna
- Cultural Heritage
- Soil
- Landscape and Townscape
- Material Assets; and
- Water.

2.16 The data also covers six additional topics considered to be particularly relevant to the SA of Buckinghamshire’s MWLDF. These are:

- Minerals
- Waste
- Energy generation and use
- Transport and Access
- Social
- Economic

2.17 The following paragraphs comment briefly on each of these topics. For fuller information, please see **Appendix B**.

Air and Climatic Factors

2.18 There is much crossover between air and climatic factors, and for this reason the two are considered together in this section.

2.19 The first indicator relates to the presence of Air Quality Management Areas (AQMAs). Since 1997 local authorities have been carrying out a review and assessment of air quality in their area, the aim of which is to ensure that the national air quality objectives will be achieved. If an area does not meet these objectives, AQMAs have to be declared. One AQMA has been identified in each of three of the four Buckinghamshire Districts (all apart from Chiltern).

2.20 Despite the identification of three AQMAs in Buckinghamshire, compared to the National Air Quality Standard, air quality in Buckinghamshire is generally assessed as good.

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Population and Human Health

- 2.21 There are several indicators relating to population and human health, a topic which has some overlap with the topic 'Social'. In terms of population growth, Buckinghamshire has a population of 479,026 people, forecast to grow to 511,808 by 2026.
- 2.22 The baseline for this topic overall paints quite a positive picture for Buckinghamshire. The County has low income deprivation; households have higher than average incomes and there are low unemployment levels, as there is a thriving economy; the population is above the national average in health terms; life expectancy is just above the national average; there are low crime levels compared to the national average; and education levels are above the national and regional averages.

Biodiversity, Flora and Fauna

- 2.23 Whilst 82% of Buckinghamshire is rural in nature, only 4% is protected by national or international designations as a Special Area of Conservation (SAC), National Nature Reserve (NNR), or Site of Special Scientific Interest (SSSI). There are two Special Areas of Conservation: Chilterns Beechwoods, and Burnham Beeches, which is also a National Nature Reserve. There are 64 SSSIs, many of which are in a favourable condition; most of the others are in an 'unfavourable but recovering' condition.
- 2.24 Buckinghamshire has 12 different priority habitats identified in its Biodiversity Action Plan, these are: calcareous grassland; chalk streams; earth heritage; farmland; hedgerows; lowland heathland and acid grassland; neutral grassland; rivers and streams; standing open water; urban habitats; woodland.
- 2.25 Although it is not strictly covered by the heading to this section, the importance of protecting geodiversity (important geological features) is increasingly recognised alongside the protection of biodiversity. One site in Buckinghamshire (at Whiteleaf Hill Quarry in Aylesbury Vale District) has been designated as a Regionally Important Geological and Geomorphological site.

Cultural Heritage

- 2.26 Buckinghamshire has a number of sites designated for their historical value, and due to the economic strength of the region, most listed buildings that could feasibly be restored have been. Within the South East, Buckinghamshire has under 10% of the total Scheduled Ancient Monuments, parks and garden, listed buildings and conservation areas. In the future, the South East region will have to cope with the negative impacts of population increase and new housing development on the historic environment.

Soil

- 2.27 The county is predominantly rural and in agricultural use. However, economic growth and land use change will place increasing pressure on agricultural land, as land for housing development becomes a premium. Most of the county falls within Grade 3 of the Defra Agricultural Land Classification. There are small areas of best-quality farmland (Grade 1) in the extreme south of the county, and more extensive Areas of Grade 2 farmland in the area

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between Aylesbury and High Wycombe. The split of the Grade 3 land between Grade 3a (which is classified nationally as 'best and most versatile farmland') and Grade 3b (which is not so classified) is not known.

Landscape and Townscape

- 2.28 Buckinghamshire is mainly rural in nature, with large areas in the southern part of the county designated as Area of Outstanding Natural Beauty (AONB), and/or Green Belt land. There are also areas designated as Areas of Attractive Landscape and Local Landscape Areas, and there are four Country Parks. The extent of the AONB and of the Metropolitan Green Belt in Buckinghamshire is shown on **Maps 2 and 3**.
- 2.29 The Chilterns AONB is considered a great asset to Buckinghamshire in landscape terms, and therefore requires an appropriate degree of protection. There are currently no permitted sand and gravel pits in the AONB, although two of the sites permitted for clay extraction (at Dundry Manor and at Meadhams Farm) are within the AONB boundaries.

Map 2 Extent of AONB in Buckinghamshire

- 2.30 Currently most housing development takes place on brownfield land, but there is still some taking place on greenfield land. This situation is likely to worsen as suitable brownfield sites become developed, and pressure for housing development continues to increase.
- 2.31 Buckinghamshire had 637 ha of previously developed land in 2004, most of which was in Aylesbury Vale District. Buckinghamshire has 6% of the total land available for development in the South East.

Map 3 Extent of Green Belt in Buckinghamshire

- 2.32 Threats to the landscape are identified as:
- gradual disappearance of remnant parkland;
 - reduction in the quality of hedgerows and;
 - the vulnerability of elements of ancient countryside such as narrow winding lanes, organic field patterns and mature tree specimens to change.

Material Assets

- 2.33 There is some overlap between this topic and subjects covered in the landscape and townscape section. Therefore availability of land for development, as discussed above, should also be considered under this heading.
- 2.34 House prices in Buckinghamshire are considerably higher than the national average. This can be considered good or bad, depending on the approach taken. For first time buyers, in particular those on low incomes such as key workers, this is a negative point, as getting on to the property ladder can be difficult. Conversely, for those who already own property, high house prices are generally welcomed. High house prices also suggest that Buckinghamshire has a healthy economy, and is somewhere that people want to live.

Water

- 2.35 The Buckinghamshire area encompasses all or part of four distinct river catchments: the River Thames; River Wye; River Colne; and Upper River Great Ouse.
- 2.36 Water quality of rivers and groundwater is at quite a high risk of pollution, however, no water quality issues have been identified relating to mineral extraction.

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- 2.37 In terms of water resources, water is becoming increasingly scarce, which represents a problem for the County, as it does for the South East as a whole.
- 2.38 PPS25 requires LPAs to prepare Strategic Flood Risk Assessment (SFRA) as a means of appraising risk of flooding, and incorporating the effects of climate change
- 2.39 Flooding is not considered to be a significant problem in Buckinghamshire, although it does occur in some areas. A map showing areas within Flood Zones 2 and 3 (that is, the areas most liable to flooding) is included as **Map 4**.

Minerals

- 2.40 Production of minerals in Buckinghamshire consists mainly of sand and gravel. In 2005 there were seven active sand and gravel sites, and four further permitted sites which were inactive. The majority of the remaining sand and gravel deposits are located in environmentally sensitive areas and are heavily protected by environmental planning policies.
- 2.41 1.16 million tonnes (mt) of primary land-won aggregates were extracted in the county in 2005, a decrease of 12% from the figure of 1.31mt produced in 2004, and a figure over 13% below the average annual production for the period 2000-2005. (It is understood that these figures are higher than the level of demand naturally generated within the county, because they include the output from two major construction projects which produced substantial amounts of sand and gravel as a by-product, and thus distorted the longer-term average production figure.) At the end of 2005 Buckinghamshire had permitted reserves of 7.53mt of sand and gravel, which equates to a landbank of 7.6 years at the county's agreed level of provision (0.99mt per year). The landbank therefore met the minimum level sought by national guidance (seven years).

Waste

- 2.42 The major waste management facilities in Buckinghamshire (including Wapseys Wood Landfill, Springfield Farm Landfill, Calvert Landfill and High Heavens Waste Disposal Complex) are in rural or semi-urban areas. The capacity of landfill in the countryside will decline as sites become full. At 2021 only two of the county's existing landfills will have void space remaining.
- 2.43 There are 9 household waste recycling centres in Buckinghamshire which recycle on average 30% of the rubbish created in the county each year. Recycling facilities are also offered at over 200 other venues within the County. Buckinghamshire landfilled 62.5% of its waste arisings in 2005/06, which was a reduction from the 2004/05 figure of 70.6%.
- 2.44 No up-to-date figures are available of the amount of construction, demolition and excavation waste arising in the county which is re-used as aggregate. In 2005, a total of just over 0.7mt of construction and demolition waste was managed in the county⁵. Emerging regional advice suggests that Buckinghamshire should make provision to enable production of 0.6mt of recycled and secondary aggregates per year by 2016.

⁵ Land Use Consultants, for SEERA (2005): Methodology for the apportionment of recycled and secondary aggregates in the South East Region, Table 2.4

Map 4 - Land in Flood Zones 2 and 3

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Energy Generation and Use

- 2.45 Energy is produced at a number of waste sites in the County. Three large landfill sites within Buckinghamshire, at Calvert, Newton Longville, and Wapseys Wood, produce electricity through the burning of methane which is then fed into the National Grid. Similarly, Aylesbury sewage plant uses sewage gas as a source of energy.

Transport and Access

- 2.46 Buckinghamshire is well served by roads and has excellent links to London. The M4, M40 and M25 all run through the county and there are several other major A roads such as the A41, A413 and the A418. However they are frequently congested. Country lanes within the AONB are also over-used and often congested. **Map 5** shows the primary route network.
- 2.47 The rail network in Buckinghamshire is shown on **Map 6**. Rail links run principally northwest-southeast, connecting the county's main towns to London to the south-east, and to Birmingham and the north.
- 2.48 Car ownership and usage are very high. Most households have one or more cars, and almost 70% of the population travels to work by car, as opposed to 8% who travel by public transport.

Social

- 2.49 Most aspects of this topic are covered under the population and human health baseline data. However, a data gap has been identified, which is the response rate to County Council consultation events. This would help indicate how much the community in Buckinghamshire gets involved in decision making.

Economic

- 2.50 Buckinghamshire has high and increasing employment levels, and below national average unemployment levels. Earnings are also higher than the averages for the South East, and for Great Britain. The county has experienced strong economic growth, partly due to its location in the South East Region. The service sector dominates Buckinghamshire's economy.
- 2.51 The decreasing proportion of the population working in the manual service sector could cause problems for labour supply within the minerals and waste industries, although these are not generally particularly labour-intensive industries.

Sustainability Opportunities and Challenges for Buckinghamshire

- 2.52 As part of scoping, it is important to identify specific sustainability opportunities and challenges experienced in Buckinghamshire, as these will need to be taken into account when carrying out the SA and developing the MWLDF.
- 2.53 Identifying opportunities and challenges also helps define key issues to be addressed by the SA objectives. The review of relevant plans and programmes, and the baseline data, have been used as a basis for identifying opportunities and challenges.

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Map 5 Primary Route Network (Buckinghamshire Local Transport Plan 2001-2006)

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Map 6 Rail Network (Buckinghamshire Local Transport Plan 2001-2006)

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2.54 Based on the baseline assessment, a list of the identified sustainability opportunities and challenges is shown in **Table 2.2**. It should be noted that these are presented as ‘opportunities and challenges’ in respect of the county’s environmental, economic and social characteristics, and not in respect of the potential for further minerals or waste development. Thus for example, the existence of the AONB is recorded as an ‘opportunity’ because it is a positive aspect of the county’s environment; but at the same time it is recognised that it may have negative impacts in searching for, or assessing, potential new sites for minerals or waste development.

Table 2.2 Current Sustainability Opportunities and Challenges for Buckinghamshire

Opportunities
Air quality in Buckinghamshire is generally good
Population has above average wealth and well being
Thriving economy
Mainly rural county, with some sites designated for biodiversity
Positive approach to restoration of historic sites
Much agricultural land
Presence of the Chilterns AONB
Flooding is not common within the county
Buckinghamshire currently has an adequate landbank of primary aggregates
Buckinghamshire is in the top ten UK counties for recycling
Challenges
There are three AQMAs in the county
The rural nature of the county, and the extensive environmental designations, may be problematic in terms of finding sites suitable for minerals and/or waste
Rivers and groundwater are at risk from pollution
Water is becoming increasingly scarce as a resource
Heavy reliance on road transport, and on the private car
Decreasing proportion of the population working in the manual service sector could cause problems for labour supply within the minerals and waste industries.

3 Sustainability Objectives

Introduction

- 3.1 In order to provide a means by which the social, environmental, and economic effects of the Minerals and Waste Development Framework Documents can be described, analysed and compared, it was necessary to establish a set of sustainability objectives to be used in the SA/SEA process. The Buckinghamshire Minerals DPD Issues and Options Report and Preferred Options Report have been assessed against these objectives, and the SA objectives have been assessed against each other to ensure that they are compatible.
- 3.2 ODPM guidance states that “the number of sustainability objectives, indicators and targets needs to be manageable”⁶. Experience suggests that a figure of around 20 objectives is a reasonable limit to ‘manageability’. It is therefore inevitable that objectives may have to be expressed in fairly general terms. To do so accords with the approach suggested in ODPM guidance⁷. More detailed considerations can be identified as sub-objectives if necessary, the purpose of which would be to clarify the scope of the objectives.

Sustainability Appraisal Objectives

- 3.3 Although the aim was to have no more than 20 SA objectives, the final list that has been drawn up extends to 23, because of the need to cover the ‘additional topics’ referred to in paragraph 2.16. The full list is set out in **Table 3.1**. These objectives have been prepared for use with all three of the Development Plan Documents within the Minerals & Waste development Framework (see paragraph 1.2).
- 3.4 An initial set of proposed objectives was included in the Scoping Report consultation. In the light of the consultation responses, some amendments were made to the original list, to produce the final list of objectives in Table 3.1. These amendments included changing SA8 from “To maintain and enhance” to “To protect and enhance” in response to a letter from the Chilterns Conservation Board who wished to ensure that the wording was in line with relevant legislation. In addition, SA11 was amended to “Not to increase and where possible to reduce flood risk” as the Environment Agency wanted a stronger objective. Furthermore it was decided by the SA team that SA14 needed to be amended to make the objective’s definition clearer. A summary of comments and resultant actions due to consultation on the scoping report can be found in **Appendix C**.
- 3.5 For ease of reference when considering the assessments in later chapters of this report, the SA objectives are reprinted on an A3 fold-out page at the end of the report.

⁶ *Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents*, ODPM 2005, paragraph 3.2.16

⁷ *Ibid*, Appendix 9, Figure 21

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Table 3.1 SA Objectives

Topic	Number	SA Objective
Air	SA1	To protect and enhance air quality
Climatic Factors	SA2	To minimise impacts on climate change
Population and Human Health	SA3	To protect the living conditions and amenities of local residents from the adverse effects of mineral and/or waste development
	SA4	To minimise adverse impacts on human health
Biodiversity, Flora and Fauna	SA5	To protect and enhance biodiversity and sites of geological interest
Cultural Heritage	SA6	To conserve and where appropriate enhance the historic environment
Soil	SA7	To conserve soil resources and quality
Landscape and Townscape	SA8	To conserve and enhance the quality and distinctiveness of landscapes and townscapes, in particular within the AONB
Material Assets	SA9	To avoid the wasteful use of natural resources and to encourage the use of alternatives to primary materials
Water	SA10	To protect water quality and water resources
	SA11	Not to increase and where possible reduce flood risk
Minerals	SA12	To conserve mineral resources and prevent their sterilisation
	SA13	To promote the effective restoration and appropriate after use of minerals and waste sites
Waste	SA14	To contribute positively to the sustainable management of waste (defined as the minimisation of the amount of waste requiring treatment, the movement of the management of waste up the waste hierarchy, and delivery of national and regional policies regarding waste self sufficiency).
Energy Generation and Use	SA15	To secure the efficient use of energy and to increase the production of renewable energy from waste
Transport and Access	SA16	To minimise the impacts of minerals and waste traffic on residents, communities and the environment
	SA17	To reduce reliance on road travel
Social	SA18	To enable today's population to meet its needs for minerals and waste facilities, while maintaining the ability of future generations to meet their needs
	SA19	To maximise community participation in and responsibility for the provision of minerals and waste services
	SA20	To protect, enhance and create (where possible) resources valued for recreation, including public rights of way
Economic	SA21	To use sound science responsibly and to encourage innovation
	SA22	To avoid significant adverse impacts on land and premises in employment use
	SA23	To maintain or improve the conditions that enable efficient growth and investment in the mineral and waste industries

4 Methodology of Assessment

Introduction

4.1 This section outlines the methodology carried out for Stage B of the SA process.

Assessment Approach

4.2 In order to satisfy the requirements of Sustainability Appraisal and the SEA Directive, the prediction of environmental, social and economic effects of the Buckinghamshire Minerals DPD involved:

- Identifying the changes to the environmental, social and economic baseline which are likely to arise from the DPD;
- Describing their likely nature, magnitude, timing and duration, along with any secondary, cumulative or synergistic effects that are predicted;
- Evaluating the significance of the predicted environmental, social and economic effects in relation to the SA objectives.

4.3 The findings of the assessment process are presented in sections 5 to 12 of this report. Issues and Options and Preferred Options were assessed against the SA objectives. The results from the Issues and Options assessment were discussed with the County Council's DPD team and were taken on board in the Preferred Options document. Where the assessment has produced negative results, the relevant policy or site allocation may need to be adjusted to resolve the problem if possible. Any such remedial actions have been suggested within the assessment and will help the DPD team improve the document in terms of sustainability. However, adjustment is not always required as some negative scores may be 'justified' when the balance of wider issues is considered.

4.4 The SA objectives have also been assessed against each other, the results of which are presented in a compatibility matrix. This ensures that the SA objectives are compatible as far as possible.

4.5 The monitoring measures outlined in section 13 will assist with identifying any unforeseen adverse effects not highlighted in the assessments carried out at this stage. This will ensure that the SA process is iterative and any future revisions of the DPD maximise their potential for achieving sustainability.

Part 2 Results of Assessments

5 Presentation and Scoring of Results

5.1 Part 2 of this Report sets out the detailed results of the assessments that have been carried out of various aspects of the evolving Minerals DPD. These assessments are presented in separate chapters, as follows:

- **Chapter 6** presents an assessment of the compatibility of the SA objectives one with another. This is not directly related to the content of the Preferred Options document, but helps to demonstrate the soundness of the measures by which all the other assessments are undertaken.
- **Chapter 7** assesses the Council's minerals planning objectives against the SA objectives. The Plan objectives were first set out in the Issues and Options document published in February 2007, when the appraisal was first made. They are retained verbatim in paragraph 3.20 of the Preferred Options document.
- **Chapter 8** assesses the remaining content of the Issues and Options document - specifically the ten main issues set out in that document, and the options relating to them that were set out in the document as a series of questions.
- **Chapter 9** provides a brief introduction to the assessment of the content of the Preferred Options document itself, which forms the subject-matter of the following chapters of this report.
- **Chapter 10** assesses the methodology used by Jacobs, as Consultants to the Council, to identify sites for possible inclusion in the Minerals DPD.
- **Chapter 11** assesses the specific locations - preferred areas, areas subject to phasing, and safeguarded areas - which the Preferred Options document proposes to identify for future minerals development.
- **Chapter 12** assesses the detailed policies put forward in the Preferred Options document. These are concerned primarily with the allocation of specific sites and the circumstances in which they may be released for extraction, together with support for the use of rail and water for the transportation of aggregates, and provision for safeguarding existing and possible future sites of rail depots or wharves used for handling aggregates.

5.2 In each chapter, the results of the assessment are set out in matrix form, with commentary concentrating in particular on matters where the assessment led to the award of a negative score. The scoring system used in the matrices was as follows:

- | | |
|-----|---|
| ✓✓✓ | Highly beneficial effect on the SA objective |
| ✓✓ | Moderate beneficial effect on the SA objective |
| ✓ | Minor beneficial effect on the SA objective |
| D | Positive impact relies on mitigation, or impact depends on how the DPD is implemented. (This notation was changed from 'M' as proposed in the Scoping Report, in order to avoid visual confusion with 'N'). |

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N	Neutral effect on the SA objective or not applicable
x	Minor adverse effect on the SA objective
x x	Moderate adverse effect on the SA objective
x x x	Highly adverse effect on the SA objective

In some cases, if an issue was judged to have both positive and negative effects against the same SA objective, the score given was a combination of the symbols above. These instances are explained in the notes in the following Chapters.

6 Sustainability Appraisal Objectives Compatibility

- 6.1 A compatibility matrix was completed to ensure that the SA objectives were compatible with each other. The matrix is shown in **Table 6.1**.
- 6.2 The results of the SA objective compatibility matrix were fairly mixed, but there were mostly positive scores.
- 6.3 There were a small number of negative scores, as some objectives are not entirely compatible with each other. SA23 (maintaining efficient growth in the waste and minerals industry) was considered to be incompatible with SA3 (living conditions and amenity) and SA4 (human health). This was because by maintaining growth in the industries this is encouraging facilities to be built and these are could have potentially adverse impacts upon amenity and health (as a result of traffic impacts) if they are located close to residential areas. However, this negative score is considered to be justifiable as it may be necessary to locate such facilities in areas close to residential areas for other sustainable reasons with any adverse impacts on amenity being mitigated. In addition, in comparing SA3 (amenity) and SA4 (human health) with SA1 (air quality) and SA2 (climate change) there is likely to be a need to locate waste facilities close to waste arisings to achieve these objectives which may therefore affect the amenity and health of larger communities. This again is considered to be a justifiable conflict.

Summary

- 6.4 Overall the scores given in this compatibility assessment do not give cause for changing the SA objectives themselves.

Table 6.1 SA Objectives Compatibility Matrix

	SA1	SA2	SA3	SA4	SA5	SA6	SA7	SA8	SA9	SA10	SA11	SA12	SA13	SA14	SA15	SA16	SA17	SA18	SA19	SA20	SA21	SA22	SA23
SA1																							
SA2	✓✓✓																						
SA3	✓/x	✓/x																					
SA4	✓/x	✓/x	✓✓✓																				
SA5	D	D	D	D																			
SA6	D	D	D	D	✓																		
SA7	D	D	D	D	✓✓	✓																	
SA8	D	D	D	D	✓✓	✓✓	✓✓																
SA9	✓✓	✓✓	D	D	✓	N	✓✓	D															
SA10	N	N	✓✓	✓✓	✓✓	N	✓✓	✓✓	✓✓														
SA11	N	N	✓✓	✓✓	✓✓	N	✓✓	D	N	✓✓✓													
SA12	D	D	✓✓	D	✓✓	N	✓✓	✓✓	✓✓	✓	✓												
SA13	N	N	✓✓	✓✓	✓✓	✓	✓✓	✓✓✓	N	✓	✓	N											
SA14	✓✓	✓✓	✓✓	✓✓	D	D	D	D	✓✓	✓	✓	N	D										
SA15	✓✓	✓✓	D	D	D	D	D	D	D	N	✓	N	✓	✓✓									
SA16	✓✓	✓✓	✓✓	✓✓✓	✓✓	✓✓	✓✓	✓✓	D	✓	✓	D	D	✓✓	✓								
SA17	✓✓	✓✓	D	✓✓	D	D	D	D	✓✓	N	D	N	N	✓✓	✓✓	✓✓							
SA18	✓✓	✓✓	✓/x	✓✓✓	D	D	D	D	✓✓	N	D	✓✓	N	✓✓✓	✓	✓	✓						
SA19	N	N	✓	✓✓	N	N	N	N	N	N	N	N	N	✓	N	N	N	✓					
SA20	N	N	✓✓	✓✓	D	D	D	D	N	N	N	✓✓	✓✓	D	N	✓	✓	D	N				
SA21	N	N	✓✓	✓✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓✓	✓✓	✓	✓✓	✓	N	✓			
SA22	D	D	✓✓	✓✓	D	D	D	D	N	N	✓	✓✓	✓✓	✓	N	✓	✓	D	N	✓	✓		
SA23	D	D	xx	x	D	D	D	D	✓	N	✓	✓	✓	✓✓✓	✓	✓	✓	✓✓	✓	D	✓	✓	
	SA1	SA2	SA3	SA4	SA5	SA6	SA7	SA8	SA9	SA10	SA11	SA12	SA13	SA14	SA15	SA16	SA17	SA18	SA19	SA20	SA21	SA22	SA23

7 Minerals Planning Objectives Assessment

- 7.1 The County Council has identified nine waste planning objectives which they believe should be addressed in the Minerals DPD. The objectives derive from the adopted Buckinghamshire Minerals and Waste Local Plan 2004-2016. The County Council has decided to use these as their 'Interim Core Strategy' to guide the identification of site options and policies to be included in the Minerals DPD. A new Core Strategy DPD is due to be adopted in March 2009.
- 7.2 The objectives were assessed against the sustainability objectives and the results are shown in **Table 7.1**. The minerals planning objectives assessed were as set out in paragraph 3.2 of the Issues and Options Consultation Report:

Plan Objective 1: To safeguard viable deposits of mineral from other development thereby avoiding the sterilisation of valuable resources.

Plan Objective 2: To enable continuity of supply of minerals over the plan period so as to meet Buckinghamshire's prevailing apportionment figure as identified in Regional Planning Guidance for the South East (RPG9).

Plan Objective 3: To facilitate/enable a reduction in the use of primary land-won minerals in line with the principles of sustainable development.

Plan Objective 4: To facilitate the production of recycled materials as an alternative to primary land-won minerals and promote the use of new and existing recycling facilities.

Plan Objective 5: To encourage the use of rail and water by supporting the development of new rail aggregates depot and wharf facilities and the safeguarding of existing and permitted permanent sites thereby helping to reduce the adverse impacts of traffic associated with the minerals industry.

Plan Objective 6: To support the Chiltern brick industry in maintaining the production of traditional Chiltern bricks.

Plan Objective 7: To ensure appropriate protection of the quality of life of those who live and work in Buckinghamshire from the adverse effects of minerals related development.

Plan Objective 8: To ensure appropriate protection of the natural and cultural heritage in Buckinghamshire from the adverse effects of minerals development.

Plan Objective 9: To ensure a high standard of restoration and appropriate after-use.

Summary of the assessment

- 7.3 The assessment of the plan objectives against the 23 sustainability appraisal objectives indicated that some of the plan objectives were not detailed enough to make a clear judgment.

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Thus some scores indicated that the objective was not applicable to the SA objective or possible outcomes were dependent upon implementation. This tended to occur where the plan objective related to few SA objectives or where the plan objective was unclear as to how it would be implemented. For example, Plan Objective 1 is not applicable to the majority of the SA objectives as it is specific to safeguarding viable mineral deposits which is only applicable to SA9 (wasteful use of natural resources), 12 (conserving mineral resources), 18 (meeting needs), 21 (sound science and innovation) and 23 (maintaining growth in industry). Assessment of Plan Objective 6 showed that the objective is not clear in demonstrating what supporting the Chiltern Brick industry will actually entail and so these outcomes will depend on implementation. Similarly assessment of Plan Objective 9 indicated that for some SA objectives outcomes would depend on what is meant by 'high standard of restoration'. In addition, another reason for some plan objectives scoring 'D' were related to the fact that the objective was encouraging minerals extraction but did not specify where this extraction was to occur, therefore making it difficult to determine impacts upon many of the SA objectives.

- 7.4 Plan Objectives 7, 8 and 9 were the only objectives to score positively for more than 10 SA objectives. These plan objectives protect quality of life and natural and cultural heritage; and ensure the high standard of restoration of minerals sites. Positive scores were given because these objectives, particularly Plan Objectives 7 and 8 would have beneficial effects on many social, economic and environmental SA objectives. Plan Objective 7 specifically seeks to protect quality of life therefore achieving highly beneficial effects for SA3 (local amenity) and 4 (human health).
- 7.5 Eight of the nine objectives scored positively for SA21 and SA23 which relate to the use of sound science and encouraging innovation and, maintaining or improving the conditions for industry respectively. Positive scores were given because for many of the objectives the information from which they were derived is based on sound science, for example by stipulating the amount of material to be extracted based on the apportionment figure in the South East Plan, in Plan Objective 2, and making sure viable deposits are safeguarded which will have used geological information, in Plan Objective 1.
- 7.6 Negative scores were given to Plan Objectives 4 and 5 however in combination with positive scores. In relation to Plan Objective 4 it was considered that there would be moderate adverse impacts upon SA13 (effective restoration) as a result of the objective encouraging the recycling of materials. This will reduce the material going to existing sites which require landfilling restoration and therefore will slow down the process of restoration. Plan Objective 5 received negative scores for SA1 (air quality), 2 (climate change) and 16 (minimise impacts of traffic). For SA1 and 2 this was because rail and water transport will have minor adverse impacts on air quality and climate change in terms of emitting greenhouse gases however they are more energy efficient modes of transport compared to using road. In terms of SA16 this objective may have some minor adverse impacts upon some residents and communities as rail depots and wharves are less dispersed and therefore there could be concentrations of traffic impacts generated.
- 7.7 In summary, the assessment shows that the impacts upon sustainability of the plan objectives are mostly dependent upon implementation; however some objectives have been assessed as having beneficial effects upon many of the SA objectives.

Table 7.1 Assessment of Minerals Planning Objectives

SA objectives		SA1	SA2	SA3	SA4	SA5	SA6	SA7	SA8	SA9	SA10	SA11	SA12	SA13	SA14	SA15	SA16	SA17	SA18	SA19	SA20	SA21	SA22	SA23	
Plan objectives (summarised)																									
1	Safeguard viable deposits and avoid sterilisation	N	N	N	N	N	N	N	N	✓	N	N	✓✓	N	N	N	N	N	✓✓	N	N	✓	N	✓	
2	Enable continuity of minerals supply over plan period	D	D	D	D	D	D	D	D	✓	D	D	✓✓	N	N	D	D	D	✓✓✓	✓	D	✓	D	✓✓	
3	Facilitate/enable reduction of primary land won minerals	D	D	D	D	D	D	D	D	✓✓	D	D	✓✓	D	N	D	D	D	D	✓	D	✓	D	D	
4	Facilitate the production of recycled materials	D	D	D	D	D	D	D	D	✓✓✓	D	D	✓✓	✓/xx	✓✓	D	D	D	D	✓✓✓	✓	D	✓	D	✓✓
5	Encourage use of rail and water	✓✓/x	✓✓/x	D	D	D	D	D	D	✓	D	D	N	N	N	✓	✓✓/x	✓✓✓	N	N	D	✓	D	✓✓	
6	To support the Chiltern brick industry	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	✓	
7	Protect quality of life from adverse effects of minerals development	✓	✓	✓✓✓	✓✓✓	✓	✓	✓	✓	D	✓	✓	D	✓✓	D	D	✓✓✓	✓	N	✓	✓✓	✓✓	✓✓✓	✓	
8	Protect natural & cultural heritage from adverse effects of minerals development	D	D	✓	D	✓✓	✓✓	✓✓	✓✓	N	✓✓	D	D	D	N	N	✓✓	D	D	N	✓✓	✓✓	D	✓	
9	Ensure high standard of restoration and appropriate after use	D	D	D	D	✓✓	D	✓✓	✓✓	N	✓✓	✓✓	N	✓✓✓	✓/x	N	D	N	N	✓✓	✓✓	✓✓	D	✓	

8 Minerals DPD Issues and Options Assessment

8.1 The Regulation 25 Report, or 'Issues and Options Consultation Document', on the Minerals DPD was published in February 2007. It sought the views of respondents on a set of nine Issues which the County Council considered to need addressing in the preparation of the Minerals DPD, as follows:

- Issue 1 End-date for the Minerals DPD
- Issue 2 The level of future supply in Buckinghamshire
- Issue 3 How to ensure the future provision of sand and gravel
- Issue 4 Ensuring supply and continuity of production
- Issue 5 Meeting the need for future sand and gravel sites
- Issue 6 Identification of future sand and gravel sites
- Issue 7 Phasing of sand and gravel sites
- Issue 8 How to reduce the use of land won aggregate
- Issue 9 Sustainable transportation of minerals

8.2 For each of these issues, one or more specific Questions were asked in the Report in order to focus responses.

8.3 A tenth issue - 'Anything else?' - was also included, to afford respondents the opportunity to raise any other matters which they considered relevant to the preparation of the Minerals DPD.

8.4 Most of the issues considered in the Issues and Options Report presented a series of options for consideration. These issues and options were derived by the County Council from their knowledge of the principal matters to which minerals planning gives rise in Buckinghamshire. The options put forward in the Report were used as the basis of this part of the Sustainability Appraisal. In some cases, however, the questions in the report did not amount to 'options' in the sense of 'alternative ways of tackling the same issue', so much as more specific questions relating to the possible content of the DPD. Questions of this type were not considered susceptible to assessment as part of the Sustainability Appraisal.

8.5 This section of the Sustainability Report identifies the options that were identified in respect of each of the Issues; summarises the findings of the Sustainability Appraisal of those options; and comments on the way in which the issue has been addressed in the Preferred Options document, having regard to the Sustainability Appraisal's findings.

8.6 A table summarising the findings of the Sustainability Appraisal of the Issues and Options document is included as **Table 8.1**, which is printed across three pages at the end of this Chapter.

8.7 Before presenting the results of the appraisal issue-by-issue, it is appropriate to make the general point that the topics covered in the Issues and Options Report were quite properly a series of generally-expressed, relatively discrete and freestanding matters, which sometimes

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had a bearing on only a relatively small number of the 23 Sustainability Appraisal Objectives. The generality of many of the questions in the Report, together with their relatively narrow subject-matter, meant that many of the options appraised at this stage of the SA process gave rise to neutral or 'D' scores. That is considered to be an entirely reasonable outcome, and is not one that should be regarded as calling into question the soundness of the approach adopted in the issues and Options Report, nor the comprehensiveness of its scope.

Issue 1 End date for the Minerals DPD

8.8 Four options were presented under this issue:

- (i) an end-date of 2018 (ten years from the proposed adoption-date of the DPD);
- (ii) an end-date of 2021 (which would extend the coverage of the Minerals and Waste Local Plan by five years beyond its current end-date of 2016);
- (iii) an end-date of 2025/26 (the end-date of prevailing and emerging regional policies and guidance); or
- (iv) some other end-date.

8.9 The Sustainability Appraisal considered only the first three of these options. The fourth was considered insufficiently specific to lend itself to the SA process.

8.10 The three assessed options all achieved neutral scores against most of the SA objectives. The only objective seen as directly relevant to this issue was SA18 regarding meeting the needs of present and future generations.

8.11 All three options performed well against these two objectives, as they all ensure a degree of forward planning for minerals. Option (iii) achieved the highest score, on the basis that - so long as there is reasonable support at national and/or regional level for the time period chosen - the longer the plan period, the better the County Council can plan for meeting future needs.

8.12 In the Preferred Options document, the County Council has chosen Option (ii) - a plan period to 2021. This option performed very satisfactorily in terms of the SA objectives, and gives rise to no issues requiring remediation or mitigation.

Issue 2 The level of future supply in Buckinghamshire

8.13 Regional Planning Guidance (RPG9, June 2006) requires Mineral Planning Authorities to plan to maintain a landbank of at least seven years of planning permissions for land-won sand and gravel. For Buckinghamshire, RPG - and its current revision as the draft South East Plan - sets an 'apportionment figure' of 0.99mtpa of provision for Buckinghamshire as forming the basis of the county's landbank. Minerals DPDs are required to include policies that "reflect" this apportionment figure (RPG9, paragraph 11.37).

8.14 The second issue in the Issues and Options report was concerned with the way in which the apportionment figure should be reflected in the Minerals DPD. It set out three options:

- (i) Aiming to meet the apportionment figure while looking to strike the best balance between sustainability impacts; or

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- (ii) Aiming to make provision for an amount of extraction, not exceeding the apportionment figure, if that can be accommodated within the terms of acceptable constraints; or
 - (iii) Aiming to make provision for a figure higher than the apportionment figure of 0.99mtpa, on the basis that the figures in the apportionment are not ceilings.
- 8.15 For the purposes of the appraisal, Option (ii) was interpreted as meaning “Not meeting the apportionment figure of 0.99mtpa if to do so would mean breaching planning constraints that are considered to be of higher priority than the maintenance of that level of provision”.
- 8.16 All three options received many ‘D’ scores, in recognition of the fact that striking the balance between the apportionment figure and sustainability impacts could lead to adverse impacts on at least some of those objectives (especially the environmental objectives), at the expense of protecting others. As it could not be known at this stage which objectives would be favoured and which disfavoured, it was not possible to be more precise in the assessment.
- 8.17 In terms of SA9, options (i) and (ii) were seen as performing well. It was recognised that the apportionment figure derived from national and regional figures which had been calculated as striking an appropriate balance between the availability of primary resources and the potential for increasing the use of secondary or recycled materials. Option (i) therefore was considered to represent a fair reflection of this balance, while option (ii) - because potentially it would limit primary extraction still further, and thus necessitate the even greater use of non-primary materials if overall demand was to be satisfied - was judged to perform very well against this objective. On the other hand, option (iii) was judged to perform poorly against this objective, because making provision for more than the apportionment level of primary extraction would reduce the impetus to make greater use of alternative materials.
- 8.18 Option (iii) also performed poorly against SA12 regarding the conservation of mineral resources, because it could lead to more extraction of primary resources than is strictly necessary to comply with national and regional policy. As option (ii) could lead to less extraction than required by those policies, it scored positively against this objective. Option (i) was regarded as neutral, because in deriving the apportionment figure (on which this option is based) a satisfactory balance had already been struck between conserving resources and meeting needs.
- 8.19 On the issue of meeting needs (SA18), option (ii) performed least well, because it contemplated the possibility of not allowing the level of primary production that had been judged, through national and regional processes, to represent a reasonable contribution towards meeting needs for aggregates. Option (iii) was recognised as meeting today’s needs, but by depleting resources more quickly than is required by the apportionment figure, it could restrict the availability of resources for meeting the needs of future generations. It therefore received a ‘plus-minus’ score against this objective.
- 8.20 Option (iii) also received a negative score against SA21 (responsible use of sound science), on the basis that it was seeking to depart from the apportionment figure that had been derived by the use of ‘sound science’. Although option (ii) could also depart from that figure, it was considered that the process implied by this option represented a reasonable testing, at the local level, of the soundness and acceptability of that figure. If the judgement made through that process was that the apportionment figure could not be delivered, this was not considered

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to conflict automatically with national and regional advice (which, as noted, is that DPDs should “reflect” that higher level advice, rather than that they should inevitably follow it). Option (ii), like option (i), therefore received a neutral score against this objective.

- 8.21 Under SA23 (enabling efficient growth and investment), it was concluded that option (ii) could hamper the industry in delivering the appropriate amount of primary material, although at the same time this would encourage the delivery of a higher level of alternative materials; while for options (iii) the argument was exactly reversed. These two options therefore received ‘plus-minus’ scores against this objective.
- 8.22 Option (i) is seen as performing best overall of the three options, as it received no negative scores and a number of strong positive scores.
- 8.23 The Preferred Options document follows option (i) by making provision on the basis of allowing the 0.99mtpa figure to be maintained throughout the plan period.

Issue 3 How to ensure the future provision of sand and gravel

- 8.24 Despite the title given to this issue, the questions that it posed were concerned with the safeguarding of sand and gravel resources. The options put forward were as follows:
- (i) Safeguard “valuable” sand and gravel resources from other types of development by defining a new Mineral Safeguarding Area as coincident with the existing Mineral Consultation area (which covers roughly the whole of the county south of Wycombe); or
 - (ii) Safeguard resources by extending the MSA over all sand and gravel resources in the county, even if they are not economically viable.
- 8.25 These options were relevant to only three of the SA objectives - SA12 (conservation of resources), SA 18 (meeting need), and SA23 (enabling efficient growth and investment). SA 12 directly relates to the subject-matter of this issue. Both options scored positively against this objective, but option (i) also scored a partial negative because it would not prevent sterilisation of minerals outside defined area in the southern part of the county, whereas option (ii) would safeguard all the county’s resources and therefore earns the maximum positive score.
- 8.26 Similar considerations also underpin the partial negative score for option (i) in terms of SA18. In this case, the more narrow area of safeguarding proposed by this option could lead to reserves being sterilised which might be needed, in the longer term, to meet the needs of future generations. Option (ii) is not subject to this reservation.
- 8.27 As regards SA23, both options score positively, reflecting the fact that they would both safeguard resources which would therefore potentially be available to the minerals industry in future. Option (ii) received a higher score because the extent of the reserves available in this way would potentially be greater than under option (i).
- 8.28 Overall, both options may be seen as beneficial in terms of the SA objectives as a whole, but option (ii) scored consistently better than option (i).

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8.29 The Minerals DPD Preferred Options document includes no detailed proposals for defining MSAs or MCAs, and thus it is not known which of the two options has been preferred by the County Council.

Issue 4 Ensuring supply and continuity of production

8.30 The questions attaching to this issue are concerned above all with providing due flexibility in the DPD. The three options offered were as follows:

- (i) Should the Minerals DPD make provision for just enough aggregate so as to theoretically meet the 0.99mtpa requirement; or
- (ii) Should it make provision for a higher level of production so as to be sure that the 0.99mtpa figure can be met; or
- (iii) Should the DPD simply rely on mineral operators to submit planning applications when they considered it necessary?

8.31 For the purposes of the appraisal, it was assumed that “make provision” in the first two options meant, in this context, “allocate sufficient sites” to enable the stated level of provision to be theoretically met (option i) or exceeded (option ii). It was further assumed that option (iii), by implying that it would be left to the industry to decide what constituted a ‘need’ for more permissions could lead to ‘over-permissions’ relative to the 0.99mtpa figure.

8.32 These questions bore principally upon SA18, regarding meeting need. Option (i) received a negative score against this objective, because there could be a risk of the 0.99mtpa figure being achieved if unexpected problems arose at any of the identified sites (e.g. the site yield proving not to be as great as had been expected, or a site not becoming available to the minerals industry). The more flexible approach of option (ii) was seen as addressing precisely these concerns, and therefore scored highly positively. Option (iii) again scored negatively, because the scenario that it envisaged would not ensure that the required level of provision could or would be made on acceptable sites.

8.33 Option (ii) received a negative score against SA3 (protection of living conditions) because identifying more sites than the minimum needed (theoretically) to meet the 0.99mtpa figure would have the effect of blighting more areas of the county than would the more tightly-defined option (i).

8.34 No other negative scores were recorded for any of these options. However, option (iii) received a number of ‘D’ scores because it was unclear whether it would lead to more, or fewer, applications being submitted over the plan period than would be required if the 0.99mtpa were to be the target here; and hence the nature and severity of its impacts could not be forecast.

8.35 The Minerals DPD Preferred Option allows maximum flexibility by identifying more sites than are believed to be required to maintain the 0.99mtpa level over the plan period, but with a phasing mechanism to avoid any excessive ‘over-permission’ while at the same time allowing flexibility if the most favoured sites are unable to deliver the required level of provision. This

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approach is akin to option (ii) which, apart from the relatively minor blight issue referred to above, performed best of the three options within Issue 4.

Issue 5 Meeting the need for future sand and gravel sites

- 8.36 In the Issues and Options Report, Issue 5 gave rise to two sets of questions - 5A under the same title as the issue as a whole, and Issue 5B entitled 'Consideration of the sustainability objectives'. The questions posed under 5B were open questions seeking respondents' views as to which were the three most important, and which the least important, of the SA objectives. These questions were not considered to be susceptible to the SA process. The appraisal therefore focussed on Issue 5A.
- 8.37 The questions under Issue 5A were concerned with the way in which sites for future extraction should be selected. It presented the following options:
- (i) Select sites with the least overall adverse impact, regardless of where they are in the county;
 - (ii) Give preference to extensions to existing workings, even if their environmental impact is greater;
 - (iii) Favour continued extraction in areas where it already takes place;
 - (iv) Give preference to areas that can be returned to land without the need to import filling materials;
 - (v) Give preference to sites that could be left as lakes; or
 - (vi) Give preference to sites where deposits are thickest [and where therefore the amount of surface disturbance to produce a unit quantity of mineral would be minimised].
- 8.38 These options were not necessarily all mutually exclusive, but for the purposes of the sustainability appraisal they were each considered separately. Because it had to be accepted that any selection of sites for future extraction would be likely to impinge adversely on some sustainability interests (especially environmental objectives), many scores of 'D' were recorded throughout the appraisal.
- 8.39 Unlike the other options, option (i) was not identified as having any negative impacts on the SA objectives.
- 8.40 Options (iv) to (vi) received negative scores against objective SA1 (protection of air quality), and SA4 (impacts on health), with the worst scores going to option (iv) because it was considered that additional adverse impacts on air quality, and potentially to health, would be created by soil movement and deposition associated with the restoration of sites to dry land, even without the importation of materials for this purpose. The negative scores for options (v) and (vi) related to the disturbance arising from soil stripping; it was noted that this would be less for option (vi) because of the smaller surface areas involved.
- 8.41 Options (ii) and (iii) received negative scores against SA3 (protection of living conditions), and SA16 (traffic impacts) because existing sites and existing working areas are, in general, relatively close to residential areas or properties. This is inevitable in a relatively built-up

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county such as Buckinghamshire, particularly when the principal mineral deposits occur in the more crowded southern part of the county. But giving preference to continued working in such areas was not seen as fully compatible with this objective. Option (vi) also received a 'partial negative' against SA3, on the basis that, although there would inevitably be potential for adverse impacts on residential amenity, this would be minimised if the surface area of new workings were kept to a minimum.

- 8.42 Option (iv) scored well against SA7 (conservation of soil), whereas option (v) performed poorly because of the loss of in-situ soil resulting from the restoration of sites to lakes. Option (v) also received a negative score against SA9 (avoiding wasteful use of natural resources) because of the loss of the in-situ soil resource. Because it could not be known at this stage whether the soils lost would or would not be of good quality, this option was given only a single negative score against these objectives. Case by case, however, impacts on them may be greater.
- 8.43 Option (iii) performed least well against SA8 (conservation of landscapes and townscapes), because extraction from new sites in existing extraction areas would perpetuate adverse impacts on the local landscape, and delay the return of that landscape to a less disturbed appearance. To a lesser extent, option (ii) suffered from the same reservation. Option (vi), like option (ii), received a 'plus-minus' score against this objective because, while disturbance to landscape would be inevitable, it would be reduced by minimising the amount of surface areas that were disturbed.
- 8.44 Option (ii) was the only one seen as having negative impacts on SA13 (effective restoration), on the basis that allowing extensions will slow down the perceived or actual restoration of existing sites as the extensions will need to be filled to complete the restoration of the site as a whole. Options (iv) and (v), being 'restoration-led', scored particularly well against SA13. The absence of any reference in the option to after-uses caused these options to be scored with 'only' two ticks rather than three.
- 8.45 Option (vi) received a strong positive score against SA21 because the selection of sites on the basis of the thickness of the depot was seen as constituting the responsible use of sound science.
- 8.46 Overall option (i) may be seen as performing best of these six options, because it attracted no negative scores. All the other options have a range of negative scores, though in options (iv) and (v) these were to some extent balanced by a number of strong positive scores.
- 8.47 The approach adopted in the Preferred Options document is closest to option (i), but it does not follow it exactly because the search for sites, rather than being extended even-handedly across the whole county, was limited to sites 'known' to the County Council, which happened to be in the main gravel-bearing area in the south of Buckinghamshire.

Issue 6 Identification of future sand and gravel sites

- 8.48 This issue invited views on five options for the way in which sites for future extraction might be identified:
- (i) Identify broad locations, or 'areas of search'; or

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- (ii) Allocate specific sites, or 'preferred areas'; or
- (iii) Identify a combination of areas of search and preferred areas; or
- (iv) Make specific site allocations, but with criteria-based policies for dealing with applications elsewhere; or
- (v) Rely wholly on criteria-based policies, with no site allocations in the DPD.

8.49 In assessing these options, the following assumptions were made:

- That the appraisal should consider the potential outcomes of each option, and not just the process that it represented;
- That the areas/sites selected under options (i) to (iv) would be the 'best' such areas (judged by whatever more detailed site-selection criteria were adopted by the Council); and
- In option (iv), the 'specific sites' would be sufficient to meet the required level of provision of 0.99mtpa, with the criteria being used to deal with proposals elsewhere.

8.50 All options received generally positive assessments, although option (i) (unlike the others) received no strong positive scores. Options (i) to (iv) all received 'partial negative' scores against the SA objectives that were concerned with environmental protection, on the basis that whichever sites or areas were selected, mineral extraction would be likely to have some adverse effects on at least some environmental interests. These 'partial negatives' were given in preference to 'D' scores because the relative strength of the offsetting positive scores needed to be shown for each option.

8.51 The two options relying on the identification of preferred areas - options (ii) and (iv) - received the strongest positive scores throughout the appraisal, because they provided the greatest certainty about where mineral extraction would take place in the future, and thus the greatest certainty about where its impacts would be felt - and, importantly, about where they would not be felt. The more the options relied on areas of search, the weaker was their positive score in the assessment.

8.52 Option (v) was different in kind from the other four. It was judged that the reference to criteria-based policies in this option would guarantee that at the development control stage detailed environmental and other factors would be taken into account in deciding on the acceptability of individual proposals. Option (v) therefore received a series of positive scores in terms of the majority of the SA objectives dealing with environmental, social and economic issues. However, it scored poorly against key considerations relating to the safeguarding of mineral resources (SA12), because not identifying sites in the plan would hamper the effective control of mineral sterilisation; and relating to meeting the demand for minerals (SA18), because it could not be known whether sufficient acceptable sites would come forward to enable the appropriate level of provision to be maintained. These scores reflect two main concerns about a wholly criteria-based approach. A partial negative was also recorded against SA23 (efficient growth and investment), because without direction from the development plan the industry would risk putting their resources into the preparation of planning applications that might prove to be unacceptable.

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- 8.53 It was also noted that leaving all decisions about the location of facilities to the development control stage could allow undue weight to be given to local considerations in decision-making, rather than balancing those considerations against the wider need for minerals and other relevant broader issues. On the other hand, identifying specific sites and/or broad locations for mineral extraction in the DPD allows these matters to be considered on an even-handed basis across the county as a whole, rather than being considered ad hoc in the more pressured situation that results from the submission of a planning application.
- 8.54 Thus although Option (v) appears to score well in the assessment table, it has certain very significant drawbacks in terms of some key sustainability objectives. It is also noted that government guidance in MPS1 is that Mineral DPDs should identify locations for future mineral extraction; by implication, therefore, Option (v) is not supported by government advice, and a DPD wholly based upon it may well fail to pass the necessary tests of soundness at the Independent Examination stage.
- 8.55 It is considered that, on balance, Option (ii) represents the ideal to be striven for. However, recognising that over time some proposals outside any identified Preferred Areas or Areas of Search may come forward at the development control stage, it is considered appropriate that the DPD should also include criteria-based policies to allow these proposals to be fairly considered. Such an approach is considered to represent a 'best of both worlds' compromise from among the options set out in the Issues and Options document.
- 8.56 The Preferred Options document contains a mix of Preferred Areas and areas held back for possible later release, together with criteria-based policies for dealing with applications elsewhere. This approach substantially accords with the approach favoured through the sustainability appraisal.

Issue 7 Phasing of sand and gravel sites

- 8.57 The questions asked under this heading were more concerned with potential cumulative impacts than about phasing as such, although they could have a bearing on the pattern and timing of releases of mineral sites over the plan period. The options put forward were these:
- (i) Should workings be restricted to only one site within a local area; or
 - (ii) Should they be limited to a maximum of two sites within a localised area; or
 - (iii) Should the number of workings in a local area be decided on the extent of the impacts of the workings (including combined/cumulative impacts), rather than by some simple numerical limit?
- 8.58 Options (i) and (ii) were considered to raise no significant issues in terms of the SA objectives, other than SA23 (efficient growth and investment). A limit on the number of workings in a local or localised area [neither term is defined in the Issues & Options Report] was seen as inhibiting efficient growth and investment by the minerals industry.
- 8.59 On the other hand, option (iii) received 'double positive/single negative' scores against the environmental objectives. This scoring acknowledges that all minerals development is likely to have some impacts on these objectives, and that there could be cumulative impacts arising from having a number of sites operating in a single area. But the development control policies

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of the DPD, and mitigation measures built into successful applications, should help to reduce these impacts to an acceptable level. Making these decisions case by case, rather than imposing blanket restrictions on operations as a result of a 'numbers game', is considered to be the most effective way of securing the proper balance between meeting the need for extraction and protecting environmental interests. Option (iii) is therefore regarded as preferable to either of the other options.

- 8.60 The Preferred Options document does not include any numerically-based limits to the number of extraction operations in any single part of the county. It therefore may be seen as following option (iii).

Issue 8 How to reduce the use of land won aggregate

- 8.61 The questions posed on this issue were concerned with the identification of sites for recycling construction and demolition waste (to produce 'alternative aggregate'). Five options were presented. In practice, questions (i) to (iii) represented one set of options, and questions (iv) and (v) a second set. These options were as follows:

- (i) Should the Council identify permanent facilities for recycling C & D waste; or
- (ii) Should it identify sites for temporary C & D recycling facilities; or
- (iii) Should it identify a combination of permanent and temporary sites?
- (iv) Should sites in the Green Belt be identified for these facilities, where necessary;
or
- (v) Should sites only be identified outside the Green Belt?

- 8.62 Option (i) received one negative score in the assessment. This was against objective SA13 (restoration), and was given because allowing permanent facilities at existing mineral or waste sites - which were considered likely to be serious candidates if the County Council were to rely on permanent facilities only - would extend the period of disturbance at these sites, and would be inimical to their effective restoration.

- 8.63 Option (ii) received a negative against SA23, on the grounds that reliance solely on temporary facilities could have an adverse impact on the industry's plans for growth and investment; and a particle negative against SA18 (meeting need), on the grounds that it would not be providing for meeting future needs.

- 8.64 Option (iii) received no negative scores, and is seen as the most appropriate way forward in terms of meeting the sustainability objectives. Like options (i) and (ii) it received a number of strong positive scores, notably in respect of SA9 (encouraging the use of alternative materials) and SA14 (securing the sustainable management of waste).

- 8.65 Options (iv) and (v) also scored well against SA9 and SA14, among others. Option (iv) received negative scores against SA3, 4 and 16 on the grounds that, by definition, the Green Belt is relatively close to residential areas and therefore the siting of facilities for recycling C&D waste there is likely to have some impacts upon people's amenity including on health (as a result of dust releases from the recycling facilities). The negative score for this option

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against SA8 reflects a similar concern, in this case expressed as an impact on the peri-urban landscape/townscape as such rather than on those who live there.

- 8.66 Option (v) received a negative score only against SA18 (meeting needs), on the basis that making a conscious decision to avoid the Green Belt for these facilities could mean that there would not be enough of these facilities in the places in the county where they are most needed, or likely to be of most benefit.
- 8.67 The Minerals Preferred Options document does not include any provisions regarding the siting of C&D recycling facilities, and thus it is not known which of the above options is (or are) favoured by the County Council.

Issue 9 Sustainable transportation of minerals

- 8.68 Once again, although this issue is a broad one, the options on which views were sought were narrowly focussed on a single topic - in this case, the way in which depots and wharves for the transshipment of aggregates might be identified and safeguarded. The four questions asked were as follows; in effect they amount to two options for each of two separate questions:
- (i) Should the County Council permanently safeguard existing temporary wharves and depots for the transport of primary aggregate; or
 - (ii) Should the temporary permissions be allowed to expire?
 - (iii) Should the Council identify new sites and allocate them as Preferred Areas for new wharves and/or depots; or
 - (iv) Should the Council identify and safeguard sites which appear technically suitable for these uses, but leave their environmental acceptability to be decided at the planning application stage?
- 8.69 As the Issues and Options Report made no reference to the locations of the temporary wharves and depots that would be covered by options (i) and (ii), it was decided that it was not possible to appraise these options in terms of most of the SA objectives. However, on issues of general principle it was considered appropriate to give positive scores to option (i) in terms of SA2 (climate change) and SA17 (reducing reliance on road transport) because they would encourage the use of sustainable modes of travel, and to give a strong negative score to option (ii) against SA17 because the loss of the current temporary facilities would force more minerals traffic on to the roads.
- 8.70 Options (iii) and (iv) could be appraised more fully. They received identical scores throughout the appraisal, with no negatives being recorded. For the purposes of the appraisal, it was concluded that the focus should be on the soundness of the basic decision to identify sites for wharves and depots, and as both options proposed such identification, it was concluded that there was nothing to choose between them in sustainability terms. The options each scored 'D' against the environmental objectives. It was noted that environmental considerations would be taken into account at some stage in the process leading to the grant of a planning permission, and again, for the purposes of the SA no distinction was drawn on the basis of the stage at which these factors would be taken into account (i.e. at the plan-making and

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development control stages under option (iii), and at the development control stage alone under option (iv).

- 8.71 The Minerals DPD makes no specific proposals regarding new or existing wharves and rail depots in the county, beyond seeking to maintain the current safeguarding of rail depot sites (past or present) at Iver and at Aylesbury, and to extend similar provisions to any other site where planning permission might be given for a future wharf or depot. This may be regarded as no more than the minimum level of 'encouragement' to the use of sustainable transport modes for the future transportation of aggregates in Buckinghamshire.

Summary

- 8.72 The issues and options raised by the County Council covered a broad range of topics, and presented a broad range of options for consideration by stakeholders. The great majority of the options raised represented genuine alternative choices to be made in the formulation of the Minerals DPD.
- 8.73 In three instances (Issue 3 dealing with the defining of Mineral Safeguarding Areas and Mineral Consultation Areas; Issue 8 dealing with sites for C & D waste recycling; and Issue 9 dealing with the identification of sites for new rail depots and wharves), the topic has not been taken forward directly into the Preferred Options document. No express reason for this is given in that document.
- 8.74 For all the other issues, the options selected for the Preferred Options document are considered to accord with the option that performed best in the sustainability appraisal, or else that performed entirely satisfactorily (Issue 1).

Table 8.1 Assessment of Issues and Options

SA Objective	Issue 1 - End date			Issue 2 - Level of supply			Issue 3 - Ensuring provision		Issue 4 - Ensuring continuity		
	Option i	Option ii	Option iii	Option i	Option ii	Option iii	Option i	Option ii	Option i	Option ii	Option iii
SA1	N	N	N	D	D	D	N	N	N	N	D
SA2	N	N	N	D	D	D	N	N	N	N	D
SA3	N	N	N	D	D	D	N	N	N	x	D
SA4	N	N	N	D	D	D	N	N	N	N	D
SA5	N	N	N	D	D	D	N	N	N	N	D
SA6	N	N	N	D	D	D	N	N	N	N	D
SA7	N	N	N	D	D	D	N	N	N	N	D
SA8	N	N	N	D	D	D	N	N	N	N	D
SA9	N	N	N	✓✓	✓✓✓	xx	N	N	N	N	D
SA10	N	N	N	D	D	D	N	N	N	N	D
SA11	N	N	N	D	D	D	N	N	N	N	D
SA12	N	N	N	N	✓	x	✓✓/x	✓✓✓	N	N	D
SA13	N	N	N	N	N	N	N	N	N	N	N
SA14	N	N	N	N	N	N	N	N	N	N	N
SA15	N	N	N	N	N	N	N	N	N	N	N
SA16	N	N	N	D	D	D	N	N	N	N	D
SA17	N	N	N	D	D	D	N	N	N	N	D
SA18	✓✓	✓✓	✓✓✓	✓✓✓	x	✓/x	✓✓/x	✓✓✓	x	✓✓✓	x
SA19	N	N	N	N	N	N	N	N	N	✓	N
SA20	N	N	N	D	D	D	N	N	N	N	D
SA21	N	N	N	N	N	x	N	N	N	N	N
SA22	N	N	N	D	D	D	N	N	N	N	D
SA23	N	N	N	✓✓	✓/x	✓/x	✓	✓✓	N	✓	D

Issue 1 options: (i) End-date of 2018; (ii) End-date of 2021; (iii) End-date of 2025/26

Issue 2 options: (i) DPD should meet the prevailing apportionment figure; (ii) Should make provision for an amount not exceeding the apportionment figure; (iii) Should make provision for more than the apportionment figure

Issue 3 options: (i) Define Mineral Safeguarding Area over same area as existing Mineral Consultation Area; (ii) Extend MSA over all sand and gravel resources, whether or not economically viable

Issue 4 options: (i) Make provision for just enough production to meet the 0.99mt figure; (ii) Make provision for higher production, to provide flexibility; (iii) Leave the level of provision to the market

SA Objective	Issue 5A - Meeting the need for future sites						Issue 6 - Identification of sites				
	Option i	Option ii	Option iii	Option iv	Option v	Option vi	Option i	Option ii	Option iii	Option iv	Option v
SA1	D	D	D	xx	x	✓/x	✓/x	✓✓✓/x	✓✓/x	✓✓✓/x	✓✓✓
SA2	D	D	D	D	D	D	✓/x	✓✓✓/x	✓✓/x	✓✓✓/x	✓✓✓
SA3	D	x	x	D	D	✓/x	✓/x	✓✓✓/x	✓✓/x	✓✓✓/x	✓✓✓
SA4	D	D	D	x	x	x	✓/x	✓✓✓/x	✓✓/x	✓✓✓/x	✓✓✓
SA5	D	D	D	D	D	D	✓/x	✓✓✓/x	✓✓/x	✓✓✓/x	✓✓✓
SA6	D	D	D	D	D	D	✓/x	✓✓✓/x	✓✓/x	✓✓✓/x	✓✓✓
SA7	D	D	D	✓✓	x	D	✓/x	✓✓✓/x	✓✓/x	✓✓✓/x	✓✓✓
SA8	D	✓✓/x	xx	D	D	✓/x	✓/x	✓✓✓/x	✓✓/x	✓✓✓/x	✓✓✓
SA9	N	D	D	✓✓	x	D	N	N	N	N	N
SA10	D	D	D	✓	✓	D	✓/x	✓✓✓/x	✓✓/x	✓✓✓/x	✓✓✓
SA11	D	D	D	D	✓✓	D	✓/x	✓✓✓/x	✓✓/x	✓✓✓/x	✓✓✓
SA12	N	N	N	N	N	N	✓	✓✓	✓	✓✓	xx
SA13	N	xx	N	✓✓	✓✓	D	D	D	D	D	D
SA14	N	N	N	✓✓	✓✓	D	N	N	N	N	N
SA15	N	N	N	N	N	N	N	N	N	N	N
SA16	D	x	x	D	D	D	✓/x	✓✓✓/x	✓✓/x	✓✓✓/x	✓✓✓
SA17	D	D	D	D	D	D	✓/x	✓✓✓/x	✓✓/x	✓✓✓/x	✓✓✓
SA18	N	N	N	N	N	N	✓	✓✓	✓	✓✓✓	✓/xx
SA19	N	N	N	N	N	N	D	✓✓	D	✓✓	✓
SA20	D	D	D	D	D	D	✓/x	✓✓✓/x	✓✓✓/x	✓✓✓/x	✓✓✓
SA21	N	N	N	N	N	✓✓	N	N	N	N	N
SA22	D	D	D	D	D	D	✓/x	✓✓✓/x	✓✓✓/x	✓✓✓/x	✓✓✓
SA23	N	N	N	N	N	N	✓	✓✓✓	✓✓	✓✓✓	✓/x

Issue 5A options: (i) Select sites with least overall adverse impact, regardless of where they are in the county; (ii) Give preference to extensions to existing workings; (iii) Favour continued extraction in areas where it already takes place; (iv) Give preference to areas that can be returned to land without importing filling materials; (v) Give preference to sites that could be left as lakes; (vi) Give preference to sites where deposits are thickest

Issue 5B: Not assessed (see report text, paragraph 8.38)

Issue 6 options: (i) Identify broad locations ('areas of search'); (ii) Identify specific sites ('preferred areas'); (iii) Identify a combination of the above; (iv) Identify specific sites, plus criteria for dealing with applications elsewhere; (v) Rely wholly on criteria-based policies

SA Objective	Issue 7 - Phasing			Issue 8 - Reducing the use of land-won aggregate					Issue 9 - Sustainable transportation			
	Option i	Option ii	Option iii	Option i	Option ii	Option iii	Option iv	Option v	Option i	Option ii	Option iii	Option iv
SA1	D	D	✓✓/x	D	D	D	D	D			D	D
SA2	D	D	✓✓/x	D	D	D	D	D	✓		D	D
SA3	D	D	✓✓/x	D	D	D	x	D			D	D
SA4	D	D	✓✓/x	D	D	D	x	D			D	D
SA5	D	D	✓✓/x	D	D	D	D	D			D	D
SA6	D	D	✓✓/x	D	D	D	D	D			D	D
SA7	D	D	✓✓/x	D	D	D	D	D			D	D
SA8	D	D	✓✓/x	D	D	D	xx	D			D	D
SA9	N	N	N	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓			✓	✓
SA10	D	D	✓✓/x	D	D	D	D	D			D	D
SA11	D	D	✓✓/x	D	D	D	D	D			D	D
SA12	N	N	N	✓✓	✓✓	✓✓	✓✓	✓✓			N	N
SA13	N	N	N	xx	N	D	D	D			N	N
SA14	N	N	N	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓			N	N
SA15	N	N	N	N	N	N	N	N			✓	✓
SA16	D	D	✓✓/x	D	D	D	x	D			D	D
SA17	D	D	✓✓/x	D	D	D	D	D	✓✓	xxx	✓✓	✓✓
SA18	N	N	N	✓✓	✓✓/x	✓✓	✓✓✓	✓/xx			✓	✓
SA19	N	N	N	N	N	N	N	N			N	N
SA20	D	D	✓✓/x	D	D	D	D	D			D	D
SA21	N	N	N	✓	N	✓	✓	✓			✓	✓
SA22	D	D	✓✓/x	D	D	D	D	D			D	D
SA23	xx	xx	D	✓✓	x	✓	D	D			✓✓	✓✓

Issue 7 options: (i) Restrict workings to only one site within a local area; (ii) Restrict workings to a maximum of two sites within a local area; (iii) No. of workings in a local area to be decided by the extent of their impacts

Issue 8 options: (i) Identify sites for permanent facilities for recycling C&D waste; (ii) Identify sites for temporary recycling facilities; (iii) Combination of the above; (iv) Where necessary, identify sites in the Green Belt for this purpose; (v) Identify sites outside the Green Belt only

Issue 9 options: (i) Permanently safeguard existing temporary wharves/rail depots; (ii) Allow existing temporary permissions to expire; (iii) Identify and allocate sites for new wharves/depots; (iv) Identify sites that appear technically suitable, but with environmental acceptability to be decided at planning application stage.

9 Minerals DPD Preferred Options Assessment

- 9.1 The earlier sections of this assessment (other than Chapter 7) have considered matters which do not fall directly within the content of the Preferred Options document. They may therefore be seen as the appraisal of the evolution of that document, rather than of the document itself. Chapters 10 to 12 however are concerned directly with the content of the Preferred Options document.
- 9.2 The Preferred Options document has two principal components which fall for appraisal:
- its site-specific proposals which aim to identify the most suitable locations for the new minerals development that will be needed over the plan period; and
 - its policies regarding the scale of new facilities needed in the county over the plan period, their favoured location, and detailed development control policies to be taken into account in the assessment of individual planning applications.
- 9.3 As well as assessing the sites included in the Preferred Options document, the appraisal has also considered the suitability of the methodology used in the identification of those sites. This appraisal is considered in Chapter 10. Chapter 11 then considers the sites themselves, while the assessment of policies is contained in Chapter 12.

10 Assessment of Site Selection Methodology

- 10.1 In March 2006, Buckinghamshire County Council commissioned consultants to undertake an assessment of nine potential mineral extraction sites in the county, one of which consisting of two adjacent areas of land which are sites 9A and 9B. These were sites that had been suggested at previous Minerals (or Minerals and Waste) Local Plan Inquiries as having potential for future extraction, but which had been rejected for one reason or another in the context of the contemporary need for further sites. In particular, they comprised sites that had been suggested by mineral operators for inclusion in the Minerals and Waste Local Plan (MWLP) that was eventually adopted in 2006, but which the County Council had declined to consider in that context because it was satisfied that, at the time when that Plan was being prepared, sufficient sites had already been identified to meet the needs for the MWLP plan period.
- 10.2 Subsequently a tenth site was added, at George Green, in response to a request from another operator that the site be considered for inclusion in future Mineral Development Documents.
- 10.3 Future reference made to the number of sites considered will be that there are 11 sites because this is how they are referred to in the Minerals Preferred Options Development Plan Document.
- 10.4 The appointed consultants assessed the sites using a methodology relating to the 23 sustainability objectives presented in the Sustainability Appraisal Scoping Report for the Minerals and Waste Development Framework, which was published in June 2006. For each site, the assessment describes the current baseline in terms of the issues raised by the SA objectives. In the light of this assessment, the sites have then been ranked in order of their suitability for inclusion as areas for future extraction in a comparative assessment. This was carried out using a methodology based on weightings and scores using thresholds. The SA objectives and the issues derived from them were prioritised according to their importance for the sites' suitability for mineral extraction. Scores were then given to the sites based on thresholds for the various issues relating to these objectives. Weightings were then incorporated into these scores according to priority and a ranked list of the sites was derived from these overall scores.
- 10.5 From this assessment, the 11 sites were judged to be suitable for minerals development and according to the ranking, have been taken forward as preferred, phased and safeguarded areas in the Preferred Options report.
- 10.6 This methodology has been subject to Sustainability Appraisal which is summarised below. Table 10.1 shows the results of the assessment.
- 10.7 The site selection methodology used to inform this Minerals DPD has been defined specifically to consider the 23 SA objectives and therefore performs very well when assessed as part of the sustainability appraisal. Highly beneficial were given to 11 SA objectives as these objectives were specifically covered as a topic in site specific reports. They were also considered in the comparative assessment with objectives being weighted 1 which is most important for the assessment and related issues either, medium, high or very high priority.

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Moderately beneficial scores were given to seven SA objectives which were weighted 1 most important or 2 next most important with related issues as low priority; or not covered specifically under a topic;

- 10.8 The topics relating to the SA objectives in each site report considered a variety of issues and indicators for use in the comparative assessment. Issues such as proximity to residential areas, access and routeing and impacts of dust were taken into account for SA3 (protecting local amenity), and SA4 (minimising impacts on human health). All these issues help indicate potential beneficial or adverse effects for these objectives. In addition, in relation to SA1, Air Quality Management Areas (AQMAs) were a consideration and given a disadvantageous score in the comparative assessment if found to be adjacent to a site. Furthermore, effects upon SA5 (biodiversity), SA6 (cultural heritage) and SA8 (landscape and townscape) were assessed by specialists in these particular fields. Walkover surveys of each of sites were carried out for SA5 and 8 and a phase 1 habitat survey was also completed. The County Council's archaeology team was consulted with regard to cultural heritage issues. This level of detail for the sites assessment is therefore beneficial for meeting these SA objectives.
- 10.9 For other high scoring objectives such as SA20 (recreation) and SA22 (employment sites), the site reports detailed the site's socio economic issues in Chapter 12 which included whether the site was near any recreational resources or in employment use. In addition, Chapter 11 of the reports included information relating to possible restoration methods which meant SA13 (effective restoration) and SA14 (sustainable waste management) scored positively too. Moreover, the site selection methodology was judged to have minor beneficial effects upon two SA objectives as these objectives were weighted 3 least important but sites were judged to perform equally, which meant the objective was not considered in the comparative assessment.
- 10.10 Although overall the assessment shows that the site selection methodology was beneficial for meeting most SA objectives, it was considered to have minor adverse effects in combination with minor beneficial effects upon three objectives. For SA2 (climate change), the methodology noted in the site reports that all sites performed equally for this objective and could not be differentiated at this level of assessment and that in the comparative assessment this objective should be weighted 2. The SA assessment indicated that although to some extent effects upon climate change cannot be differentiated between the sites, the type of transport mode could have been considered to partially address this objective in the methodology, as rail and water are thought to be more energy efficient than road transport, therefore reducing greenhouse gas emissions. A combination of positive and negative scores were also given to SA19 (community participation) and SA21 (sound science and innovation). This was because although issues relating to these objectives were mentioned they were not fully considered in the site reports and were judged to be not applicable to the comparative assessment. For SA19 (community participation), information regarding the close proximity of residential areas to the site could have been used to inform the effects upon this objective.

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Summary

- 10.11 The sites selection methodology was based on a comparative assessment of the sites in relation to their potential impacts upon the 23 sustainability objectives as defined in the Sustainability Appraisal Scoping Report for the Minerals and Waste Development Framework, published in June 2006.
- 10.12 The sustainability appraisal of the site selection methodology indicates that the methodology has beneficial effects on sustainability. This is a result of the topics and issues considered in the sites assessment reports which relate to the 23 objectives and the weightings and priorities given to score the sites as part of a comparative assessment to inform the timing of release for the sites. It is suggested that for future revisions of the Minerals DPD, the site selection methodology, if possible, should incorporate more information regarding climate change, community participation and sound science and innovation to make sure these are addressed in more detail. It should be noted that these are minor amendments as the methodology as a whole promotes sustainability very well.

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Table 10.1 Assessment of Site Methodology

SA Objective	How is the objective covered in the methodology?	Score
SA1	Covered in Chapter 3 – sections regarding dust and air quality generally relating to AQMAs. Weighted 2 - next most important for the assessment and considered to be of low priority in the overall comparative assessment of sites.	✓✓
SA2	Noted in Chapter 11 however due to the level of this assessment it was decided that no differentiation could be made between the 11 sites. Weighted 2 - next most important for the assessment and noted that all the sites perform equally for this objective.	✓/✗
SA3	Covered specifically in Chapter 3 under sub headings 'proximity and buffer zones', 'houses and other receptors close to the site', 'access and routeing' and 'duration of activities'. Weighted 1 – most important for the assessment and considered to be of very high priority in the overall comparative assessment of sites.	✓✓✓
SA4	Covered specifically in Chapter 3 under 'Health' and 'Dust'. Weighted 1 – most important for the assessment and considered to be of high priority in the overall comparative assessment of sites.	✓✓✓
SA5	Covered specifically as Chapter 5 entitled Ecology – ecological constraints considered and phase 1 habitat survey carried out. Weighted 1 – most important for the assessment and considered to be of very high priority in the overall comparative assessment of sites.	✓✓✓
SA6	Covered as Chapter 6 entitled 'Cultural Heritage' – considers information obtained for each site regarding archaeological interest and importance. Weighted 2 - next most important for the assessment and considered to be of low priority in the overall comparative assessment of sites.	✓✓
SA7	Covered specifically as Chapter 8 entitled 'Soils' – considers agricultural land classification. Weighted 1 – most important for the assessment and considered to be of high priority in the overall comparative assessment of sites.	✓✓✓
SA8	Covered specifically as Chapter 4 Landscape and Visual. Weighted 1 – most important for the assessment and considered to be of very high priority in the overall comparative assessment of sites.	✓✓✓
SA9	Covered under Chapter 10 entitled Material Assets - considers resource yield and overburden at each site. Weighted 1 – most important for the assessment and considered to be of high priority in the overall comparative assessment of sites.	✓✓✓
SA10	Covered specifically as Chapter 7 entitled Water – considers SPZs. Weighted 1 – most important for the assessment and considered to be of medium priority in the overall comparative assessment of sites.	✓✓✓
SA11	Covered specifically as Chapter 7 entitled Water - considers EA flood zones. Weighted 1 – most important for the assessment and considered to be of high priority in the overall comparative assessment of sites.	✓✓✓

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SA Objective	How is the objective covered in the methodology?	Score
SA12	Mineral resources covered in Chapter 10 discussion regarding conservation of these resources in terms of whether they need to be worked now or not – their potential for sterilisation. Weighted 1 – most important for the assessment and considered to be of medium priority in the overall comparative assessment of sites.	✓✓
SA13	Covered under Chapter 4 entitled Landscape and Chapter 11 entitled Other Environmental Issues however no fixed restoration assumptions are made. Weighted 1 – most important for the assessment and considered to be of low priority in the overall comparative assessment of sites.	✓✓
SA14	Covered under Chapter 11 Other Environmental Issues – restoration assumptions are made which affect the impacts on this SA objective - although not fixed assumptions. Weighted 2 – next most important for the assessment and considered to be of low priority in the comparative assessment	✓✓
SA15	Covered under Chapter 11 Other Environmental Issues – energy generation covered in terms of restoration and the use of energy to power extraction machinery. Weighted 3 – least important for the assessment and considered to perform equally amongst the sites.	✓
SA16	Covered under Chapter 3 under the sub heading ‘Access and Routeing’ and specifically as Chapter 9 entitled Transport and Access. Weighted 1 – most important for the assessment and considered to be of high priority in the overall comparative assessment of sites.	✓✓✓
SA17	Covered specifically within Chapter 9 Transport and Access. Weighted 2 - next most important for the assessment and considered to be of low priority in the overall comparative assessment of sites.	✓✓
SA18	Covered within Chapter 12 entitled ‘Social and Economic Issues’ - all the sites have potential to contribute to meeting needs. Weighting not given and sites perform equally for this objective.	✓✓✓
SA19	Covered within Chapter 12 – not really assessed as common to all sites. Weighting not given and sites perform equally for this objective.	✓/✗
SA20	Covered within Chapter 12 – PROWs located and other nearby recreational interests considered. Weighted 2 - next most important for the assessment and considered to be of low priority in the overall comparative assessment of sites.	✓✓
SA21	Covered within Chapter 12 – mentioned but not really considered to be relevant to minerals. Not weighted or used in the comparative assessment.	✓/✗
SA22	Covered within Chapter 12 – identification of employment uses. Weighted 3 – least important for the assessment and considered to perform equally amongst the sites.	✓
SA23	Covered within Chapter 12 – exercise of choosing preferred areas helps to meet this objective	✓✓✓

11 Preferred Areas, Phased Areas and Safeguarded Areas Assessment

- 11.1 The Minerals DPD Preferred Options Report has put forward 11 sites which were judged to be suitable to accommodate minerals development. These are a combination of Preferred, Phased and Safeguarded areas. The sites have been subject to Sustainability Appraisal and the assessment results are shown in **Table 11.1** at the end of this chapter.
- 11.2 The assessment showed that against SA1 (air quality) and SA2 (climate change) all of the sites would either have potentially minor adverse or moderately adverse effects upon these objectives with Site 1 (Lea South) the only site also having potentially minor beneficial effects against SA2. These scores were given to SA1 as a result of minerals development generating dust which can therefore adversely affect local air quality. In addition, negative scores were given to Sites 1, 3, 6 and 9A and 9B as these lie adjacent to Air Quality Management Areas. Increases in dust from minerals development in these locations may exacerbate the existing poor air quality which is being managed.
- 11.3 The assessment of sites against SA2 related to their proposed mode of transporting extracted material as this would affect the production of greenhouse gases which causes climate change. It was noted that the majority of the sites would use road transport which is not as efficient as rail or water and would therefore increase greenhouse gases. Site 1 (Lea South) was an exception to this as proposals for the site would be to use a conveyor and then transfer to water to transport the material, however some road transport may still be needed for some site activities. This would have a minor beneficial effect for minimising the impacts of climate change as this mode is more fuel efficient therefore releasing less greenhouse gases per tonne of material transported.
- 11.4 The sites scored a mixture of positive and negative scores against SA3 (protecting local amenity) and SA4 (human health). Sites at Barge Farm (2), Slade Farm (3), and Lake End West (9A) were all considered to have potentially minor beneficial effects upon local amenity and human health. This is because these sites are located away from built up residential areas with only a few properties within 200 metres and any mitigation would most certainly protect local amenity and human health. However Sites 1, 5 and 10 are located in close proximity to large built up areas with more than 100 properties within 200 metres. These sites are therefore likely to have moderate adverse effects upon local amenity due to the large concentration of properties adjacent to the site. Notwithstanding these effects, the sites are big enough to provide appropriate buffers and mitigation, which subsequently should have a positive impact upon protecting residents' amenity.
- 11.5 Other sites assessed in terms of protecting local amenity were close to smaller concentrations of properties thus also scoring negatively, however they did score positively as buffers could be provided due to their size. Site 4 Park Lodge Extension is an exception as this site is not very big and if buffers were to be included this may affect the viability of the site. Without any buffers this site may have moderate adverse effects upon local amenity. In relation to effects on human health the sites located near residential areas both large and small may have minor

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adverse effects upon health. This is due to the effects of dust likely to be felt across a wide area surrounding the site.

- 11.6 Assessment of the sites against SA5 (biodiversity) indicated that all the sites may have a minor beneficial effect upon protecting biodiversity and sites of geological interest. All the sites were considered to have potential for protected species however none of them were located within statutory or non statutory sites. For SA6 (cultural heritage) all the sites except for Site 4 were judged to have minor adverse impacts as studies suggest they have archaeological potential and historical sensitivity. Site 4 was regarded as having low sensitivity for archaeology so scored positively for this SA objective.
- 11.7 The sites assessment against SA8 (landscape and townscape) showed that eight sites would not adversely impact upon local landscapes. Many of the sites are located within unremarkable landscapes therefore minerals development would not lead to a loss of a significant landscape. However Sites 2, 3 and 8 are situated in areas of rural character or in the case of Site 3 in an Area of Attractive Landscape. In the short term any minerals development could have negative impacts on the environment however, if restored to land, which is proposed for one of the sites, this would only be a temporary effect of the development.
- 11.8 In relation to SA7 (conserving soil) the quality of soil and the type of restoration was assessed for each site. Site 1 was considered potentially to have minor adverse effects upon soil resources as although not of high quality, the site is likely to be restored to a lake therefore with the loss of the soil disturbed. Sites 2, 6, 8 and 9A are also likely to be restored to lakes however the soil lost at these sites is expected to be of high quality. Thus the sites also scored negatively for this SA objective. The rest of the sites assessed are due to be restored by landfilling and so the soil at these sites is likely to be replaced therefore having a beneficial impact upon conserving soil resources.
- 11.9 With regard to avoiding the wasteful use of natural resources (SA9) it was considered by the SA team that every site would be fulfilling this objective by being a proposed mineral site and having the potential of extracting the mineral when necessary. It was decided though that the higher yielding sites would score better as, overall this would provide fewer disturbances to land as there would be fewer sites for the amount of material needed for the County. These results also relate well to SA12 which is to conserve mineral resources and prevent sterilisation. All the sites scored a combination of positive and negative scores for this objective. This was because the sites, which are being proposed as mineral extraction sites, would not therefore conserve the mineral however; they would prevent sterilisation as they are unlikely to be allocated for any other development.
- 11.10 For SA10 (water) and 11 (flooding) the sites were scored using information from the Environment Agency's flood and source protection zone mapping. The results indicated that some of the sites are likely to have adverse impacts upon groundwater due to them being located in inner and outer zones or within the total catchment zone. Negative scores were differentiated where sites were only partially within these zones. Sites 1 and 6 were the only sites not affected by potential groundwater impacts. In relation to flood risk it was considered that sites outside or within the flood zone but being restored to lakes would have beneficial effects upon SA11. Despite there being a risk, the three sites restored to lakes would allow water storage and may therefore reduce flood risk within the local area. Sites 5, 9B and 10,

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which are within flood zones and being restored to landfill, were judged to be more vulnerable and may therefore increase flood risk, thus negative scores were given.

- 11.11 Scoring with respect to SA13 (effective restoration) was positive for all sites. It was considered that because all the sites were proposing to be restored either to lakes or landfilling this would have a beneficial effect upon this objective. However differentiation was made between the two methods of restoration as restoration to lakes is the more favoured option for effective restoration as landfilling is not needed. Notwithstanding this landfilling does provide a potential for renewable energy but is the less favoured option for sustainable waste management. This issue regarding landfilling is also reflected in the scoring for SA14 (sustainable waste management). Positive scores were given to sites with proposals to restore to lakes and negative scores were given to those sites expected to use landfilling for restoration.
- 11.12 The assessment of sites for SA15 (energy efficiency and generation) focussed on the sites ability to produce renewable energy from landfilling and the mode of transport used. As discussed in paragraph 11.3 all the sites, except Site 1, propose to transport their material via road. This gave these sites negative scores for SA15. Some of the sites are also being restored to lakes which was considered to be adverse for energy generation. However positive scores have been given to those sites being restored to landfill.
- 11.13 With regard to SA16 (traffic impacts) sites were assessed according to the number of houses that are passed before the strategic highway network is reached. Some sites which had residential areas close by scored negatively as access routes tended to be through these built up areas. Site 1 scored both positively and negatively as although the site would potentially use water for transportation there may still be some road transportation needed. For SA17 (reliance on road travel) as discussed in paragraph 11.3 all the sites, except Site 1 which is likely to use water based transport, were judged to have highly adverse impacts for reducing the reliance on road travel as these sites are likely to use road to transport material.
- 11.14 Positive scores were given to sites in relation to SA18 (meeting needs) and 19 (community participation). It was considered by the SA team that the allocation of sites and their proposed extraction yields fulfilled SA18. Scores were differentiated according to the amount of material to be extracted as higher yielding sites are likely to help meet needs more so than smaller yielding ones. For SA19 sites were judged to help meet this objective as participation would be encouraged with consultation of the minerals DPD and also at the development control stage. The majority of the sites would also raise community awareness as most sites are within 200m of residential development.
- 11.15 The assessment of sites in relation to SA20 (recreational resources) showed that some sites have public rights of way within their boundaries. This would therefore have a minor negative impact due to the need for them to be diverted if this is possible. In addition, sites 1, 4, 5, 6 and 8 are within the Colne Valley Regional Park which is a locally designated landscape and recreational area. Although the park does not discourage mineral extraction there could, temporarily, be negative impacts to this recreation resource. However restoration of the site after extraction may enhance the park therefore having a beneficial effect. This is reflected in the scores given to these sites being both positive and negative.
- 11.16 Scores given to sites against SA21 (sound science and innovation) were all positive and all sites scored the same. The fact that the sites are potentially going to be developed means that

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innovation will be needed to mitigate any potential impacts on local amenity or restoration. For SA22 (avoid adverse impacts on employment land) scores were based on whether the site was an employment site or close to one which would be sensitive to minerals development. It was found that all the sites did not have or were not adjacent to sensitive employment uses therefore all the sites were considered to be highly beneficial in achieving this SA objective.

- 11.17 The assessment of sites against SA23 (maintain or improve conditions for investment and industry) was positive as the allocation of these sites for minerals development allows the minerals industry to have some certainty for the future. Positive scores were differentiated according to the site's yield as the more material to be extracted the more favourable this is for industry. Seven sites were considered to be highly beneficial for this SA objective. These included Berry Hill Farm, New Denham and Lake End East.

Summary

- 11.18 Overall the sites performed well against the majority of the SA objectives. SA1 (air quality), 2 (climate change) and 17 (reduce reliance on road) were the only objectives where the majority of the scores were negative. This was due to the modes of transport likely to be used for the sites.
- 11.19 A comparative assessment of these sites against the SA objectives has been undertaken separately. The conclusions of this assessment are recorded in the opening section of Chapter 5 of the Preferred Options document. The comparative assessment applied weightings to the various SA objectives, and therefore its overall conclusions may not be exactly matched by the unweighted 'ticks and crosses' shown in Table 11.1 of the present report.

Table 11.1 Assessment of Allocated Areas

SA Objectives	SA1	SA2	SA3	SA4	SA5	SA6	SA7	SA8	SA9	SA10	SA11	SA12	SA13	SA14	SA15	SA16	SA17	SA18	SA19	SA20	SA21	SA22	SA23
DPD Sites																							
1. The Lea South	xx	✓/x	✓/xx	x	✓	x	x	✓	✓✓	✓✓	✓✓	✓/x	✓✓✓	✓✓	✓/x	✓/x	✓✓✓	✓✓	✓✓	✓/x	✓	✓✓✓	✓✓
2. Barge Farm, Taplow	x	x	✓	✓	✓	x	xx	x	✓✓	x	✓✓	✓/x	✓✓✓	✓✓	x	x	xxx	✓✓✓	✓	✓/x	✓	✓✓✓	✓✓✓
3. Slade Farm, Hedgerley	xx	x	✓	✓	✓	x	✓	x	✓✓	xx	✓✓✓	✓/x	✓	xx	✓/x	✓	xxx	✓✓✓	✓	✓	✓	✓✓✓	✓✓✓
4. Park Lodge Extension	x	x	✓/xx	x	✓	✓	✓	✓✓	✓	xx	✓✓✓	✓/x	✓	xx	✓/x	✓	xxx	✓✓✓	✓✓	✓	✓	✓✓✓	✓
5. Trenches Farm	x	x	✓/xx	x	✓	x	✓	✓✓	✓✓	xx	✓/x	✓/x	✓	xx	✓/x	✓	xxx	✓✓✓	✓✓	✓/x	✓	✓✓✓	✓✓
6. New Denham	xx	x	✓/x	x	✓	x	xx	✓✓	✓✓	✓✓	✓✓✓	✓/x	✓✓✓	✓✓	x	✓✓	xxx	✓✓✓	✓✓	✓	✓	✓✓✓	✓✓✓
7. Berry Hill Farm, Taplow	x	x	✓/x	x	✓	x	✓	✓✓	✓✓	x	✓✓✓	✓/x	✓	xx	✓/x	✓✓	xxx	✓✓✓	✓✓	✓✓	✓	✓✓✓	✓✓✓
8. Shreding Green	x	x	✓/x	x	✓	x	xx	xx	✓✓	x	✓✓✓	✓/x	✓✓✓	✓✓	x	xx	xxx	✓✓✓	✓✓	✓	✓	✓✓✓	✓✓✓
9A Lake End West	xx	x	✓	✓	✓	x	xx	✓✓	✓✓	xx	✓✓	✓/x	✓✓✓	✓✓	x	x	xxx	✓✓✓	✓	✓✓	✓	✓✓✓	✓✓
9B Lake End East	xx	x	✓/x	x	✓	x	✓	✓✓	✓✓	xx	✓/x	✓/x	✓	xx	✓/x	x	xxx	✓✓✓	✓✓	✓/x	✓	✓✓✓	✓✓✓
10. George Green	x	x	✓/xx	x	✓	x	✓	✓✓	✓✓	xx	✓/x	✓/x	✓	xx	✓/x	✓	xxx	✓✓✓	✓✓	✓	✓	✓✓✓	✓✓✓

12 Development Control Policies Assessment

12.1 The Minerals DPD Preferred Options Report includes five development control policies for the assessment of mineral development within the county. These have been appraised against the 23 sustainability objectives as shown in Table 3.1 of this report. This section summarises the findings of this assessment policy by policy and suggests mitigation measures where it is considered appropriate to improve the sustainability of the policy assessed. The assessment scoring is shown in **Table 12.1** at the end of this chapter.

Policy MDPD1 - Preferred Areas for Minerals Extraction

12.2 This policy identifies the areas where the County Council in principle supports the extraction of minerals in order to maintain the county's landbank throughout the plan period. Whilst the policy identifies two specific sites, it emphasises that planning permission will only be granted where it can be demonstrated that this would be in keeping with other relevant policies i.e. those contained within the Minerals and Waste Local Development Framework (LDF).

12.3 In appraising the policy it was generally regarded as positive when scored against each of the 23 SA objectives, with one or two anomalies where the assessment was seen to be less clear cut or not applicable in that case. SA1 through to SA11, with the exception of SA9, all scored as moderately beneficial noting that the potential environmental impacts would be addressed by other relevant policies within the LDF. Development would therefore not be allowed if these factors were not considered and appropriately mitigated against. In assessing SA9 on avoiding the wasteful use of natural resources the score was considered to be dependant on how the extracted material is to be used, the possible effects of transportation of the extracted materials and whether there is a better more sustainable option. It was therefore assigned a score of 'D'.

12.4 Of the remaining SA objectives, SA14 and SA19 were considered to be not applicable, while SA15 was scored as slightly negative given that the policy is neutral as regards the production of renewable energy from waste, but may demand high levels of energy in the extraction process. Lastly SA21 was scored as neutral on the basis that the policy neither promotes nor restricts the use of innovation.

Suggested Mitigation

12.5 No changes are recommended to this policy.

Policy MDPD2 – Areas Subject to Phasing

12.6 Policy MDPD1 identifies 2 preferred areas, which together make sufficient provision for the maintenance of the county's annual apportionment of 990,000 tonnes of sand and gravel to 2018. Policy MDPD2 identifies a further 4 areas that will ensure the provision of minerals until the end of the plan period by allowing the release of these sites, should any shortfall in the landbank or apportionment over the plan period be identified. Should these sites be release then they will also be assessed against policy MDPD1 a) and b).

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- 12.7 Given that the policy refers back to MDPD1, there are a number of similarities in the assessment against the SA objectives. SA1 to SA11 each score the same as the MDPD1 assessment and essentially for the same reasons. Development would only be allowed if the potential environmental impacts are properly assessed against the relevant policies in the LDF and considered acceptable. In addition the policy will only allow the release of these additional sites should there be a shortfall in the county's landbank. These sites will therefore only be released if there is an acceptable need for them, ensuring that they are not developed unnecessarily placing greater pressure on the county's resources and future requirements.
- 12.8 In phasing the potential release of the sites, the policy is conserving the county's mineral resources. However it does not necessarily prevent their future sterilisation. For this reason SA12 was considered to have a moderate benefit score and a slight negative score in our assessment. The remaining SA objectives again largely duplicate the scores for the MDPD1 assessment, reflecting the policy's referral back to MDPD1 when considering proposals against it. SA18 and SA23 were assessed as highly beneficial given that the policy will safeguard a number of sites for future generations and will maintain the supply of sites for industry to work, therefore enabling efficient growth and investment in the mineral industry.

Suggested Mitigation

- 12.9 No changes are recommended to this policy.

Policy MDPD3 – Safeguarded Areas for Mineral Extraction

- 12.10 Policy MDPD3 identifies four sites that will be safeguarded from possible future non-mineral development by the identification as Mineral Consultation Areas (MCAs) in the Core Strategy DPD. The policy ensures that these sites will not be developed for non-mineral development, without initial consultation with the Minerals Planning Authority. Whilst a MCA does not necessarily preclude development in totality, it will prevent development in areas where there is a likely or proven Mineral deposit. In this case at the four identified sites.
- 12.11 Given that the policy seeks to prevent development at least within the plan period, many of the SA objective assessed were largely considered to be not applicable. The rationale behind this decision being that the policy does not relate to the actual development of mineral sites. Were development to take place in these areas it would need to be assessed by the relevant policies in the Minerals and Waste LDF, consequently this policy no longer needs be considered against.
- 12.12 Notwithstanding the above SA12 and SA 23 were considered to be applicable. Against SA12 the policy was given a score of highly beneficial as it would act to conserve and prevent sterilisation of mineral resources. SA 23 was scored as slightly beneficial as it was considered that the policy does not provide as much certainty as preferred areas in maintaining or improving the efficient growth and investment in the mineral industry.

Suggested Mitigation

- 12.13 No changes are recommended to this policy.

Policy MDPD4: Applications for Mineral Extraction outside Preferred Areas

- 12.14 Where planning applications for are received by the county for sand and gravel extraction outside preferred areas, they will be assessed against Policy MDPD4. This policy will allow applications for mineral extraction, only where such applications are consistent with other policies in the Minerals and Waste LDF and will contribute towards the maintenance of the county landbank.
- 12.15 When assessed against the SA objectives the policy scored relatively positive across the board with the majority scored as moderately beneficial. For instance, SA1 through to SA11 were each given this score on the basis that the potential environmental impacts would be addressed by other relevant policies within the LDF. Development would therefore not be allowed if these environmental factors were not considered and appropriately mitigated against. The same scores were given to SA13, SA16, and SA17 for similar reasons.
- 12.16 SA12 refers to the conservation and prevention of sterilisation of mineral resources. Whilst it was considered that Policy MDPD4 may help prevent sterilisation it would not necessarily conserve mineral resources. For this reason it was thought to have a moderate benefit and a slight adverse impact and therefore given a score reflecting this outcome (i.e. two ticks and a cross). SA15 was given a slight negative score as it was considered that the policy would be unlikely to secure the efficient use of energy, but may conversely demand high levels of energy in the extraction process where permission is approved.
- 12.17 Of the remaining objectives SA18, SA20, SA22 and SA23 were all given positive scores. SA18 was given a highly beneficial score as it would essential restrict mineral extraction outside the preferred areas unless a need for meeting the county's landbank was identified. The policy was seen to maximising the county's ability to meet today's needs whilst maintaining the needs of future generations. Of the remaining objectives SA19 and SA21 they were considered to be not applicable in relation to this policy.

Suggested Mitigation

- 12.18 No changes are recommended to this policy.

Policy MDPD5: Importation of Aggregates

- 12.19 Policy MDPD5 encourages the use of rail and water for the movement of materials, including the importation of raw materials into the county. The policy also safeguards existing rail aggregate sites at Thorney Mill Road, Iver and at Griffin Lane, Aylesbury and any other sites where planning permission is given for the establishment of any new wharves or permanent rail depots.
- 12.20 When assessed against SA objectives SA1 and SA2, Policy MDPD5 was considered to be promoting more efficient and sustainable modes of transportation, reducing the impacts on air quality and climate change. However whilst more efficient these modes of transport will still have some impact, and therefore a moderate benefit and slight negative score was given. SA objectives SA5 to SA11 were given the same score, but for slightly different reasons. The positive scores given as the environmental effects will still need to be assessed against other relevant policies in the Mineral and Waste LDF ensuring no unacceptable

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impacts, similarly the use of existing safeguarded facilities should not have any additional impacts on the environment. The slight negative score is given as any new facilities, however small may well have some impacts which are considered adverse.

- 12.21 The policy against all the remaining applicable SA objectives was scored relatively positively. In particular against SA21 it was believed that the policy was encouraging the use of sound science and innovation by promoting more fuel efficient transport modes. Similarly the safeguarding of these sites helps maintain the efficient growth within the industry. Both were scored as have a slight benefit.

Suggested Mitigation

- 12.22 No changes are recommended to this policy.

Summary of the Policy Appraisal

- 12.23 The results from the assessment of the policies set out in the Preferred Options report indicate that overall the policies would have beneficial effects upon the majority of the SA objectives. This is due to the fact that many of the policies require proposals to accord with policies saved from the Minerals and Waste Local Plan, policies within the emerging LDF, and other requirements that help deliver and promote sustainable development.
- 12.24 Policy MDPD3 when assessed by the team was considered to be not applicable against the majority of the SA objectives as a result of the policy not being directly linked to development. However, on the whole the objectives that were applicable were awarded positive scores. The majority of the policies cross-referred to other relevant policies in the Preferred Options report, which strengthened their beneficial effect upon SA objectives. In none of the policies did we propose any further mitigation.
- 12.25 Where adverse scores were recorded these were no worse than slightly adverse and in all cases are complemented with a positive score, generally greater in value. The overall assessment is therefore considered to be positive.

Table 12.1 Assessment of Policies

SA Objectives	SA1	SA2	SA3	SA4	SA5	SA6	SA7	SA8	SA9	SA10	SA11	SA12	SA13	SA14	SA15	SA16	SA17	SA18	SA19	SA20	SA21	SA22	SA23
Policy																							
MDPD1 Preferred Areas for Mineral Extraction	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	D	✓✓	✓✓	✓✓/✗	✓✓	n/a	✗	✓✓	✓✓	✓✓✓	n/a	✓✓	n/a	✓	✓✓✓
MDPD2 Areas Subject to Phasing	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	D	✓✓	✓✓	✓✓/✗	✓✓	n/a	✗	✓✓	✓✓	✓✓✓	n/a	✓✓	n/a	✓	✓✓✓
MDPD3 Safeguarded Areas for Mineral Extraction	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	✓✓✓	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	✓
MDPD4 Applications for Mineral Extraction Outside Preferred Areas	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓/✗	✓✓	n/a	✗	✓✓	✓✓	✓✓✓	n/a	✓✓	n/a	✓	✓✓
MDPD5 Importation of Aggregates	✓✓/✗	✓✓/✗	✓✓	✓✓	✓✓/✗	✓✓/✗	✓✓/✗	✓✓/✗	✓✓/✗	✓✓/✗	✓✓/✗	n/a	n/a	n/a	✓✓	✓✓/✗	✓✓✓	n/a	n/a	✓/✗	✓	n/a	✓

13 Monitoring

- 13.1 The SEA Directive requires that the significant environmental effects of implementing plans or programmes are monitored. Monitoring should identify any unforeseen adverse effects and ensure remedial action is taken.
- 13.2 Table 13.1 identifies indicators linked to the SA objectives which might be used to monitor the achievement of each of those objectives. It is stressed that these are indicators for monitoring the SA objectives, and not for monitoring the DPD as a whole.
- 13.3 Table 13.2 provides an indication, based on information currently available to the compilers of this report, of the availability of data relevant to each of the indicators proposed in Table 13.1, with some suggestions about how some of the key data might be secured in the future. The table distinguishes between data required on a county-wide basis (for monitoring the overall effectiveness of the Plan on a county-wide basis), and that required on a site-specific basis (for monitoring the more direct impacts of individual schemes deriving from the new Minerals DPD). It also identifies areas where there is believed to be a current 'data gap' which will need to be filled if the indicator is to be satisfactorily monitored.
- 13.4 It will be for the County Council to set up the arrangements for monitoring the Plan. It is suggested that the Council might prepare an overall monitoring framework, covering the monitoring both of the DPD proper and of the SA objectives - detailing exactly what it is proposed to monitor, by what means, and how frequently. This will allow a comprehensive list of relevant 'data gaps' to be identified, and will allow the early establishment of arrangements for obtaining data that is not currently held or collected by the Council.
- 13.5 Ideally the assembly of all relevant baseline data should be carried out at an early stage. Although more local information relating to the individual sites should similarly be assembled early where it already exists, more detailed information regarding the local environment of these sites would more appropriately be provided in Environmental Statements (or equivalent planning submissions) prepared by planning applicants to support their proposals.
- 13.6 It is further suggested that consideration might be given to securing, as a condition of a planning permission or through a legal agreement associated with such a permission, that the operator of any newly-permitted mineral site (including new rail depots and wharves, and aggregates recycling facilities) undertakes monitoring of some of the key impacts of his development (such as noise, emissions to air, traffic generation, etc), and makes the results available to the County Council. This would provide a means of monitoring these impacts at little or no expense to the Council.

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Table 13.1 SA Objectives and Proposed Indicators

SA Topic	SA Objective No.	SA Objective	Proposed Indicator
Air	SA1	To protect and enhance air quality	1/1: Number of complaints received about air quality issues (including dust both on- and off-site) associated with new minerals-related development
			1/2: Number of mineral sites in or close to AQMAs
Climatic Factors	SA2	To minimise impacts on climate change	2/1: Level of generation of greenhouse gases from operations on mineral sites
			2/2: Size of carbon footprint of mineral operation
Population and Human health	SA3	To protect the living conditions and amenities of local residents from adverse effects of minerals and/or waste development	3/1: Proximity of mineral extraction, processing or handling sites to houses
			3/2: Number of complaints from residents on issues of noise, vibration, dust, odour, litter and other direct environmental impacts of new minerals development
			3/3: Ambient noise levels at mineral sites
			3/4: Number of road traffic accidents adjacent to mineral sites
SA4	To minimise adverse impacts on human health	4/1: Number of reported instances of illness associated with mineral sites	
		4/2: Number of reported accidents on mineral sites, to staff and to members of the public	
Biodiversity, flora and fauna	SA5	To protect and enhance biodiversity and sites of geological interest	5/1: Number of Natura 2000 sites, SSSIs, NNRs, LNRs, and RIGs lost to, or adversely affected by, mineral sites
			5/2: Trees and hedgerows lost to minerals development
Cultural Heritage	SA6	To conserve and where appropriate enhance the historic environment	6/1: Number of listed buildings and conservation areas lost to, or adversely affected by, mineral sites
			6/2: Number of SAMs and other archaeological sites lost to, or adversely affected by, mineral sites
Soil	SA7	To conserve soil resources and quality	7/1: Permanent loss of agricultural land by grade to mineral developments.
			7/2: Grade of restored land as compared with the site pre-extraction
Landscape and Townscape	SA8	To conserve and enhance the quality and distinctiveness of landscapes and townscapes, in particular within the AONB	8/1: Number of mineral sites within designated landscape areas, including AONBs and ALLIs
			8/2: Number of Conservation Areas and listed buildings adversely affected by minerals development
Material Assets	SA9		9/1: Level of primary aggregates production, both absolutely and in relation to prevailing sub-regional apportionment
			9/2: Level of secondary/recycled aggregates production, both absolutely and in relation to prevailing sub-regional apportionment

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SA Topic	SA Objective No.	SA Objective	Proposed Indicator
		To avoid the wasteful use of natural resources and to encourage the use of alternatives to primary materials	9/3: Proportion of total aggregates production which is made up of secondary/recycled aggregates 9/4: Amount of land newly disturbed by mineral-related development 9/5: Amount of greenfield land newly lost permanently to mineral-related development 9/6: Total amount of land in mineral-related uses, whether temporary or permanent 9/7: Amount of land restored, both absolutely and proportionate to amounts of land disturbed for mineral-related development 9/8: Number of mineral sites restored to agriculture/forestry/nature conservation
Water	SA10	To protect water quality and water resources	10/1: River quality levels
			10/2: Groundwater quality levels
			10/3: Number of incidents of water pollution (including pollution of abstraction points) deriving from mineral-related developments
	SA11	Not to increase, and where possible to decrease, flood risk	11/1: Number of mineral sites within indicative flood plains 11/2: Number and proportion of planning applications determined in accordance with Environment Agency advice on flood risk
Minerals	SA12	To conserve mineral resources and prevent their sterilisation	12/1: Number of planning applications within Mineral Consultation Areas that are referred to the County Council, compared with total number of eligible applications in the MCAs.
			12/2: Number of referred applications to which the County Council raises an objection on mineral sterilisation grounds
			12/3: Number of permitted planning applications which would be likely to sterilise economic mineral deposits
	SA13	To promote the effective restoration and appropriate after use of minerals and waste sites	13/1: Number and proportion of sites restored to a beneficial use.
Waste	SA14	To contribute positively to the sustainable management of waste (defined as the	14/1: Amount of land permitted for mineral working that will require landfilling in restoration, compared with total landfill voidspace requirement.

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SA Topic	SA Objective No.	SA Objective	Proposed Indicator
		minimisation of the amount of waste requiring treatment, the movement of the management of waste up the waste hierarchy, and delivery of national and regional policies regarding waste self-sufficiency)	14/2: Number of mineral recycling facilities permitted on existing or former mineral sites
Energy Generation and Use	SA15	To secure the efficient use of energy and to increase the production of renewable energy from waste	15/1: Level of use of renewable energy associated with mineral site operation (including use by road-going vehicles)
			15/2: Modal split of mineral traffic
Transport and Access	SA16	To minimise the impacts of minerals and waste traffic on residents, communities and the environment	16/1: Distance of permitted new mineral facilities from the primary road network
			16/2: Number of road accidents associated with mineral traffic
			16/3: Number of legal agreements (or equivalent) controlling the routing of vehicles to/from mineral sites
			16/4: Volumes of mineral imported into/exported from the Plan area from/to other areas
	SA17	To reduce reliance on road travel	17/1: Accessibility of mineral sites by non-car/lorry modes
			17/2: Number of permissions given for minerals facilities that will make use of rail, water or other non-road modes for transportation of material off-site.
			17/3: Modal split of mineral traffic
Social	SA18	To enable today's population to meet its needs for minerals and waste facilities, while maintaining the ability of future generations to meet their needs	18/1: Level of production of primary and secondary/recycled aggregates within the county
			18/2: Level of imports of primary and secondary/recycled aggregates for use within the county
			18/3: Rate of take-up of allocations for minerals development
			18/4: Level of permitted reserves of primary aggregates
	SA19	To maximise community participation in and responsibility for the provision of minerals and waste services	19/1: Response rates to DPD proposals for new mineral development, including numbers in support of proposals
			19/2: Response rates to mineral planning applications, including numbers in support of proposals

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SA Topic	SA Objective No.	SA Objective	Proposed Indicator
	SA20	To protect, enhance and create (where possible) resources valued for recreation, including public rights of way	20/1: Number of public footpaths and bridleways adversely affected by mineral sites
			20/2: Proximity of other publicly-accessibly land (including land in formal and informal recreational use) to mineral sites
Economic	SA21	To use sound science responsibly and to encourage innovation	21/1: Number of applications for mineral facilities proposing innovative approaches/ technologies
	SA22	To avoid significant adverse impacts on land and premises in employment use	22/1: Proximity of mineral facilities to land and premises in employment use
			22/2: Number of complaints from commercial uses adjacent to new facilities relating to the operation of those facilities
			22/3: Number of businesses relocating in order to move away from new mineral facilities, and rate of take-up of any sites thus vacated
	SA23	To maintain or improve the conditions that enable efficient growth and investment in the mineral and waste industries	23/1: Number of major mineral operators operating in the county
23/2: Number of established mineral operators in the county who look to expand their portfolios in the county			

Table 13.2 Availability of data for the proposed indicators

Indicator	County-wide	Site-specific
SA 1/1	Not applicable	Information will become available as sites become operative.
SA 1/2	Details of the locations of AQMAs are held by District Councils.	Information will become available through the development control process.
SA 2/1	It is <u>not known</u> whether information is currently available, or whether measures are in place to allow this data to be recorded in future.	Information could be requested at the development control stage, and monitored once the site is in operation.
SA 2/2	It is <u>not known</u> whether information is currently available, or whether measures are in place to allow this data to be recorded in future.	Information could be requested at the development control stage, and monitored once the site is in operation.
SA 3/1	Not applicable	Information will become available through the development control process.
SA 3/2	Not applicable	Information will become available as sites become operative.
SA 3/3	The availability of data on overall noise levels in the county is <u>not known</u> at the time of compiling this report.	Ambient noise levels should be assessed by the developer at the planning application stage. Predicted impacts of particular proposed developments will be for consideration at the development control stage, and actual impacts can only be judged through subsequent monitoring.
SA 3/4	Accident data is held by the Highway Authority.	Accident data is held by the Highway Authority.
SA 4/1	Overall data on the health of the county's population is available, but it is <u>not known</u> whether this specific information is available at a county level, or whether measures are in place to allow it to be recorded in future.	Likely to require new monitoring and reporting arrangements to be put in place with the relevant health authorities.
SA 4/2	Not applicable	Likely to require new monitoring and reporting arrangements to be put in place with HSE or other relevant authorities.

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Indicator	County-wide	Site-specific
SA 5/1	Information on the number and locations of Natura 2000 sites etc is held by the County Council. The number of such sites that are currently adversely affected by minerals development is <u>not known</u> .	The location of Preferred Areas in relation to these sites is known. Predicted impacts of particular proposed developments will be for consideration at the development control stage, and actual impacts can only be judged through subsequent monitoring.
SA 5/2	Details of the locations of TPOs is held by County and or District Councils	As SA 5/1
SA 6/1-2	Information on the number and locations of the constraint areas referred to is held by the County Council. The number of such sites that are currently adversely affected by minerals development is <u>not known</u> .	The location of Preferred Areas in relation to these constraint areas is known. Predicted impacts of particular proposed developments will be for consideration at the development control stage, and actual impacts can only be judged through subsequent monitoring.
SA 7/1	Generalised information on the distribution of the various grades of agricultural land is available from maps published by the Ordnance Survey. Even at this generalised level, the split of land between Grades 3a and 3b is <u>not known</u> . The reliability of this information when applied at the local level is considered to be poor.	The generalised grading of agricultural land within the Preferred Areas is known, though its reliability may be open to question. More detailed information should be supplied by the prospective developer at the planning application stage.
SA 7/2	Not applicable	Information should be available following the completion of aftercare. Arrangements for allowing the grade of the restored land to be established and monitored should ideally be incorporated in agreed restoration/aftercare schemes.
SA 8/1-2	Information on the number and locations of the constraint areas referred to is held by the County Council. The number of such sites that are currently adversely affected by minerals development is <u>not known</u> . More general information is available from the <i>Countryside Quality Counts</i> project and from national and regional State of the Countryside reports.	The location of Preferred Areas in relation to these constraint areas is known. Predicted impacts of particular proposed developments will be for consideration at the development control stage, and actual impacts can only be judged through subsequent monitoring.
SA 9/1	Figures of primary aggregates production are collected annually through the RAWP, and published by SEERA.	Production figures for individual sites are not available, for reasons of commercial confidentiality.

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Indicator	County-wide	Site-specific
SA 9/2	Production data is collected and published periodically for central government. The reliability of data in this area is traditionally poor, but is improving.	Production figures for individual sites are not available, for reasons of commercial confidentiality.
SA 9/3	Combination of data from SA 9/1 and SA 9/2.	Not applicable
SA 9/4-8	County-wide data could be compiled from an aggregation of data from individual sites.	Data can be obtained from regular monitoring of individual sites.
SA 10/1-10/2	Generalised information is available from the Environment Agency.	Predicted and actual impacts at the DPD's proposed sites, or at other sites of future planning applications, will be for consideration at planning application stage.
SA 10/3	Information should be available from the Environment Agency.	Information should be available from the Environment Agency.
SA 11/1	Maps of indicative floodplains are prepared by the Environment Agency, and are amended/updated on a regular basis.	The location of the Preferred Areas in relation to floodplains is known, but should be verified through the planning application process.
SA 11/2	Not applicable	Information will be available through the development control process.
SA 12/1-3	Not applicable	Information will be available through the development control process, though specific new arrangements may be needed with the Districts to ensure all required data is obtained.
SA 13/1	General information on restored land is available from national surveys undertaken periodically by government (the most recent being in 2000). More general information is available from the <i>Countryside Quality Counts</i> project and from national and regional State of the Countryside reports.	Information will become available through the development control process.
SA 14/1	Not applicable	Information will become available through the development control process.
SA 14/2	Details are held by the County Council	Information will become available through the development control process
SA 15/1	Not applicable	Information could be requested at the development control stage, and monitored once the site is in operation.
SA 15/2	As SA 17/3	As SA 17/1

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Indicator	County-wide	Site-specific
SA 16/1	Not applicable	Information will become available through the development control process.
SA 16/2	Accident data is held by the Highway Authority.	Accident data is held by the Highway Authority.
SA 16/3	Not applicable	Information will become available through the development control process.
SA 16/4	The extent or reliability of current data on mineral movements into and out of the county is <u>not known</u> . Imports data is collected periodically at regional level, but is <u>not available</u> for individual counties.	Not applicable
SA 17/1	Information in respect of current sites in the county is held by the County Councils	The scope for use of non-road transport has been a factor in deciding the locations of the Preferred Areas. Information on future patterns will become available through the development control process.
SA 17/2	Not applicable	Information will become available through the development control process.
SA 17/3	Future changes to the current position county-wide could be monitored through site-by-site monitoring of mineral movements.	As SA 17/1
SA 18/1	As SA 9/1 and 9/2	As SA 9/1 and 9/2
SA 18/2	Imports data at county level is <u>not available</u> from existing surveys. If this data could be sought, material imported to Bucks and then re-exported to other counties (e.g. from rail depots) should be identified and discounted if possible.	Not applicable
SA 18/3	Not applicable	Information will become available through the development control process.
SA 18/4	Figures of primary aggregates reserves are collected annually through the RAWP, and published by SEERA.	Reserves figures for individual sites are not available, for reasons of commercial confidentiality.
SA 19/1	Information will become available through the process of preparing, and later reviewing, the DPD.	Not applicable
SA 19/2	Not applicable	Information will become available through the development control process.

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Indicator	County-wide	Site-specific
SA 20/1	Information on the locations of public rights of way is held by the County Council.	The location of Preferred Areas in relation to the rights of way network is known. The impact of future mineral sites on public rights of way is for consideration at the development control stage, and subsequently.
SA 20/2	Information on publicly-accessible land for recreation should be available from Local Plan Proposals Maps etc.	As for SA 20/1.
SA 21/1	Not applicable	Information will become available through the development control process.
SA 22/1	Not applicable	Information will become available through the development control process.
SA 22/2	Not applicable	Information will become available as sites become operative.
SA 22/3	Not applicable	This will require monitoring on a site-by-site basis at regular intervals. Follow-up with the relocated firms may be appropriate, to establish the exact reasons for their move.
SA 23/1	This information should be available to the County Council, and should be regularly updated.	Not applicable
SA 23/2	Records should be made of such expansion proposals. Proposals that are made to the County Council in confidence should be recorded, even if details cannot be disclosed.	Not applicable

14 Conclusions

- 14.1 The development and production of Local Development Frameworks (LDFs) is an iterative process and this SA is an integral part of that process. In producing the Minerals Development Plan Document (MDPD) the SA identifies the likely significant effects on sustainable development of adopting that document.
- 14.2 The SA process has also identified a number of opportunities and challenges for Buckinghamshire over the coming years and these should be taken into account in the continuing development of the documents.

Sustainability Appraisal Objectives – Quick Reference Table

Number	SA Objective
SA1	To protect and enhance air quality
SA2	To minimise impacts on climate change
SA3	To protect the living conditions and amenities of local residents from the adverse effects of mineral and/or waste development
SA4	To minimise adverse impacts on human health
SA5	To protect and enhance biodiversity and sites of geological interest
SA6	To conserve and where appropriate enhance the historic environment
SA7	To conserve soil resources and quality
SA8	To conserve and enhance the quality and distinctiveness of landscapes and townscapes, in particular within the AONB
SA9	To avoid the wasteful use of natural resources and to encourage the use of alternatives to primary materials
SA10	To protect water quality and water resources
SA11	Not to increase and where possible reduce flood risk
SA12	To conserve mineral resources and prevent their sterilisation
SA13	To promote the effective restoration and appropriate after use of minerals and waste sites
SA14	To contribute positively to the sustainable management of waste (defined as the minimisation of the amount of waste requiring treatment, the movement of the management of waste up the waste hierarchy, and delivery of national and regional policies regarding waste self sufficiency).
SA15	To secure the efficient use of energy and to increase the production of renewable energy from waste
SA16	To minimise the impacts of minerals and waste traffic on residents, communities and the environment
SA17	To reduce reliance on road travel
SA18	To enable today's population to meet its needs for minerals and waste facilities, while maintaining the ability of future generations to meet their needs
SA19	To maximise community participation in and responsibility for the provision of minerals and waste services
SA20	To protect, enhance and create (where possible) resources valued for recreation, including public rights of way
SA21	To use sound science responsibly and to encourage innovation
SA22	To avoid significant adverse impacts on land and premises in employment use
SA23	To maintain or improve the conditions that enable efficient growth and investment in the mineral and waste industries

Appendix A Review of Relevant Plans and Programmes

Plan/Programme	Key Relevant Objectives	Implications for DPDs	Implications for SA/SEA
International and European			
The Johannesburg Summit on Sustainable Development, 2002	<p>This Summit aimed at encouraging further commitment to sustainable development including sustainable consumption and production.</p> <p>Implementation of strategies to support ecosystems and increase use of renewable energy sources.</p>	The DPD policies should be aimed at promoting sustainable development.	Ensure SA/SEA framework reflects sustainable development principles and forms a robust base for testing DPDs.
UN Framework Convention on Climate Change, 1994	<p>To achieve stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.</p> <p>Protect the climate system for the benefit of the present and future generations and should take precautionary measures to anticipate and mitigate its adverse effects.</p>	The DPDs should include reference to the need to reduce greenhouse gas emissions especially by reducing the need to travel and the distances travelled. The WDPD should also aim to reduce the amount of waste landfilled to reduce production of methane.	Check that the DPDs promote the objectives of the Convention and have policies aimed at reducing greenhouse gas emission as a result of waste management and mineral extraction and their transportation.
EU Sustainable Development Strategy, 2001	The strategy proposes measures to deal with important threats to our well being, such as climate change, poverty and emerging health risks.	The DPDs should encourage the sustainable use of resources, energy efficiency and protecting and enhancing biodiversity.	Check the DPDs promote sustainable use of resources and seek to protect and enhance biodiversity.

Plan/Programme	Key Relevant Objectives	Implications for DPDs	Implications for SA/SEA
EU Waste Framework Directive (75/442/EEC as amended by Directive 91/156/EEC)	<p>Aims at reducing the amount of waste produced and encourages recovery of waste and use of waste as a resource.</p> <p>Waste should be managed without endangering human health and without using processes or methods which could harm the environment</p>	The WDPD should aim to promote waste reduction and encourage recovery. It should also contain policies aimed at environmental protection.	Check that the WDPD policies are in line with the requirements of the Waste Framework Directive.
EU Landfill Directive (99/31/EC)	To prevent, or reduce as far as possible, negative effects on the environment, in particular the pollution of surface water, groundwater, soil and air, and on the global environment, including the greenhouse gas effects as well as any resulting risk to human health, from landfilling of waste.	<p>The WDPD should include policies on environmental protection and EIA requirements for proposals likely to have negative impacts on the environment. The DPD should ensure that where landfilling is proposed, the environmental impacts are understood and mitigated against.</p> <p>It should also include policies that define standards for the design and operation of landfills.</p>	Check the WDPD includes objectives to protect and where possible enhance the environment
EU Habitats Directive (92/43/EEC)	The Directive requires member states to legislate and administer measures to maintain and restore natural habitats and wildlife species at favourable conservation status.	The DPDs should include policies that seek to protect sensitive habitats and reclaim destroyed habitats where practicable.	The SA will assess environmental impacts of sites that are close to sensitive/important habitats.

Plan/Programme	Key Relevant Objectives	Implications for DPDs	Implications for SA/SEA
<p>Hazardous Waste Directive: 91/689/EEC (HWD), as amended by 94/31/EC</p>	<p>Aims to introduce a precise definition of hazardous waste and to promote the environmentally sound management of hazardous waste.</p> <p>Requires, at 2.1, that the Competent Authorities (EA or LPA) draw up plans for the management of hazardous waste and make those plans public.</p>	<p>DPD should include provision for any hazardous waste disposal in the county and including policies relating to environmentally sound management of such wastes.</p>	<p>SA/SEA should check that disposal of Hazardous Waste is environmentally acceptable.</p>
<p>Water Framework Directive: (2000/60/EC) (WFD)</p>	<p>Article 4(7) of the WFD sets out a range of criteria, which must be applied when determining whether or not new developments or modifications, which affect water status, should be permitted. These criteria include taking all practical mitigation measures; demonstrating overriding public interest or equivalent; and confirming that there are no technically viable, environmentally better options that are not disproportionately costly.</p>	<p>DPD should include policies that protect and enhance water quality.</p>	<p>Check that DPD refers to protection of water bodies including groundwater.</p>

National

Plan/Programme	Key Relevant Objectives	Implications for DPDs	Implications for SA/SEA
Securing the Future – UK Sustainable Development Strategy, 2005	This strategy aims to 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. It has the following guiding principles: living within environmental limits; ensuring a strong, healthy and just society; achieving a sustainable economy; promoting good governance; and using science responsibly.	The Core Strategy DPD should seek to promote sustainable minerals and waste development.	Check that the Core Strategy incorporates objectives on achieving sustainable minerals and waste development.
Wildlife and Countryside Act, 1981	Addresses the problems of species protection and habitat loss by setting out the protection that is afforded to wild animals and plants in Britain.	DPDs should include policies that seek to protect and enhance wildlife and the countryside where practicable.	Check that the DPDs seek to protect wildlife and the countryside and propose measures to mitigate against any negative impacts and maximise and positive impacts.
Waste Strategy 2000 (including changes made in 2005)	Key objectives are to: reduce the quantity of waste sent to landfill; where waste is produced, increase value derived from it by promoting recovery through recycling, composting and energy from waste. Approach should be comprehensive, flexible, iterative and transparent.	WDPD policies should seek to encourage reduction in waste produced as well as promote recovery of value from waste through reuse and recycling. Decision making process behind the WDPD should be recorded, reviewed at regular intervals and made publicly available.	Check WDPD includes objectives to reduce, recover and recycle waste.
Climate Change: The UK Programme,	Strategic package on policies and	The DPDs should include	Check DPDs include objectives to

Plan/Programme	Key Relevant Objectives	Implications for DPDs	Implications for SA/SEA
2006	<p>measures to cut greenhouse gases.</p> <p>Energy supply: emphasises the role that renewable energy sources may have in reducing future greenhouse gas emissions.</p> <p>Transport: emphasises the contribution that LPAs can make to reducing transport-related emissions of greenhouse gases. Key objective of reducing the number of car journeys.</p> <p>Reduce methane emissions through reducing the amount of waste sent to landfill, combined with increased collection of landfill gas.</p>	<p>policies on climate change and encourage renewable energy generation. They should also seek to reduce distances travelled and the use of cars.</p> <p>The WDPD should contain policies to encourage sustainable generation of energy from waste and movement of waste by rail or water.</p> <p>The MDPD should contain policies that encourage movement of minerals by rail or water.</p>	<p>increase the supply of energy from renewable sources.</p> <p>Check the WDPD includes objectives to reduce the amount of waste landfilled and increase the volume of waste transported by water and rail where practicable, and reduce the number of journeys generated.</p> <p>Check the MDPD includes policies that encourage transport of minerals by rail and water where practicable.</p>
Air Quality Strategy for the UK, 1997	<p>Sets objectives and associated targets for eight main air pollutants to protect health, including sulphur dioxide, nitrogen dioxide and lead levels. Performance against these objectives will be monitored where people are regularly present and might be exposed to air pollution.</p>	<p>The Minerals and Waste DPDs should seek reduction in air pollution as a result of mineral extraction and waste management and transportation.</p>	<p>SA will test the DPDs effects on air quality.</p>
UK BAP (Biodiversity Action Plan), 1992	<p>The UK BAP's goal is to conserve and enhance biological diversity within the UK and to contribute to the conservation of biodiversity</p>	<p>The DPDs should include policies on protection and enhancement of biodiversity.</p>	<p>SA framework will include an objective on biodiversity against which DPD policies and proposals can be tested.</p>

Plan/Programme	Key Relevant Objectives	Implications for DPDs	Implications for SA/SEA
	through all appropriate mechanisms.		
<p>Planning Policy Statement (PPS)1 Delivering sustainable development, 2005</p>	<p>Sets out the Government's overarching planning policies on the delivery of sustainable development. It is based on the following principles:</p> <p>Development plans should ensure the pursuit of integrated sustainable development; planning authorities should address the causes and potential impacts of climate change; a spatial approach should be at the heart of planning for sustainable development; planning policies should promote high quality inclusive design in the layout of new development; the community should be involved in setting the vision of the plan.</p>	<p>The DPDs should conform to PPS1 and seek the delivery of sustainable waste and mineral development.</p>	<p>Ensure SA/SEA framework reflects sustainable development principles and forms a robust base for testing DPDs.</p> <p>Check DPDs contain policies to minimise and mitigate against any detrimental environmental effects of waste management and mineral extraction.</p>
<p>Draft Planning Policy Statement: Planning and Climate Change – Supplement to Planning Policy Statement 1</p>	<p>Supplements PPS1 and sets out the ways planning should contribute to mitigation of climate change by reducing emissions and adapt to it by considering unavoidable consequences.</p> <p>Key planning objectives are;</p> <p>Fully contribute to the Government's Climate Change</p>	<p>The DPDs should be in accordance with the key objectives of the PPS. Policies should be set that provide low carbon and renewable sources of energy therefore mitigating climate change. Policies should also be adapting to climate change by identifying spatial patterns of development in line with the key objectives.</p>	<p>Ensure SA/SEA framework includes climate change objectives.</p>

Plan/Programme	Key Relevant Objectives	Implications for DPDs	Implications for SA/SEA
	<p>Programme and energy policies;</p> <p>Obtain the highest viable standards of resource and energy efficiency and reduction in carbon emissions in developments;</p> <p>Provide patterns of urban growth that make the best possible use of sustainable transport;</p> <p>Secure new development and create places resilient to the effects of climate change consistent with social cohesion and inclusion and sustain biodiversity;</p> <p>Reflect development needs and interests of communities and allow them to contribute to tackling climate change</p> <p>Respond to the concerns of business and encourage competitiveness and technological innovation</p>		
<p>Planning Policy Guidance (PPG)2 Green Belts, 1995 (as amended 2001)</p>	<p>Sets out the Government's policies on green belts and planning. Key objectives include:</p> <p>Providing opportunities for access</p>	<p>Discourage inappropriate development in the green belt and ensure appropriate restoration in green belt areas.</p>	

Plan/Programme	Key Relevant Objectives	Implications for DPDs	Implications for SA/SEA
	<p>to the open countryside, opportunities for sport and outdoor recreation;</p> <p>Retain attractive landscapes, and enhance landscapes near to where people live;</p> <p>To improve damaged and derelict land around towns;</p> <p>To secure nature conservation interest and retain agricultural, forestry and related uses.</p>	<p>Create opportunities for leisure and recreation through restoration.</p>	
<p>PPS7 Sustainable development in rural areas, 2004</p>	<p>All development in rural areas should be well designed, in keeping and scale with its location, and sensitive to the character of the countryside and local distinctiveness.</p> <p>Ensure the quality and character of the wider countryside is protected, or enhanced and seek to protect natural resources.</p> <p>Take particular notice of areas with statutory protection.</p> <p>Support wide range of economic activities in rural areas.</p> <p>Where development on agricultural land is unavoidable, LPAs should</p>	<p>DPDs should include policies to preserve the best agricultural land, countryside character and promote diversity in the rural economy.</p> <p>Consideration should be given to the potential after-use of minerals and waste sites.</p>	<p>Check DPDs include objectives consistent with protecting the character of the countryside and encourage diversity in the rural economy.</p>

Plan/Programme	Key Relevant Objectives	Implications for DPDs	Implications for SA/SEA
	seek to use areas of poor quality land (grades 3b, 4 and 5).		
PPS9 Biodiversity and geological conservation, 2005	<p>To ensure biodiversity and geological conservation is enhanced and that land use policies and decisions integrate biodiversity and geological diversity with other considerations.</p> <p>To conserve enhance and restore England's wildlife and geology by sustaining and where possible improving, the quality and extent of natural habitat and geological and geomorphological sites.</p>	The DPDs should aim to maintain, enhance, and restore or add to biodiversity and geological conservation during site use and restoration.	Check DPDs include objectives to protect and, where possible, enhance biodiversity and geodiversity.
PPS10 Planning for sustainable waste management, 2005	<p>Planning authorities should:</p> <p>Drive waste management up the waste hierarchy;</p> <p>Provide a framework in which communities take more responsibility for their own waste;</p> <p>Help implement the national waste strategy;</p> <p>Prevent harm to human health and the environment;</p> <p>Enable waste to be disposed of near its point of origin.</p>	<p>The WDPD should promote reduction, reuse and recovery as well as providing facilities for disposal.</p> <p>When proposing sites for waste management the DPD should take into account physical and environmental constraints; cumulative effects of previous waste disposal facilities, capacity of the transport infrastructure and give priority for previously developed sites.</p>	<p>The SA should check that policies address the waste hierarchy and recognise wider environmental, economic and social benefits of sustainable waste management.</p> <p>Check DPD provides sufficient and timely waste management facilities to meet the needs of the local communities and facilitate self-sufficiency.</p>

Plan/Programme	Key Relevant Objectives	Implications for DPDs	Implications for SA/SEA
PPG13 Transport, 2001	<p>Promote more sustainable transport choices for both people and freight.</p> <p>Reduce the need to travel, especially by car.</p>	<p>DPDs should contain policies on sustainable modes of transport for minerals and waste.</p> <p>DPDs should address the proximity principle, access and local road networks.</p>	<p>Check that policies on reducing transport impacts are included and that policies promote sustainable transport choices especially a reduction in the need to transport minerals and waste by road.</p>
PPG15 Planning and the historic environment, 1994	<p>Protection of the historic environment, listed buildings, conservation areas, parks and gardens, battlefields and the wider historical environment.</p>	<p>The DPDs where appropriate should include policies to protect the historic environment.</p>	<p>Check that the DPD policies and proposals aim to protect and enhance the historic environment.</p>
PPG16 Archaeology and planning, 1990	<p>Indicates that archaeological resources are finite, which should be identified, recoded and in certain cases preserved from development.</p>	<p>Include policies on archaeological preservation and state a presumption in favour of physical preservation in situ especially in relation to mineral extraction.</p>	<p>Check that DPD policies provide the protection, enhancement and preservation of archaeological sites and their settings.</p>
PPG17 Planning and Open Space, Sport and Recreation, 2002	<p>Local Authorities should:</p> <p>Assess the needs and opportunities for open space and recreation;</p> <p>Set local standards for recreational and open space facilities;</p> <p>Maintain an adequate supply of open space, sports and recreational facilities;</p>	<p>DPDs where appropriate should contain policies to protect, promote and enhance existing open space, sports and recreational facilities as well as plan for new facilities.</p>	<p>Check that DPD policies provide the protection, enhancement and preservation of open space, sports and recreational facilities.</p>

Plan/Programme	Key Relevant Objectives	Implications for DPDs	Implications for SA/SEA
	Plan for new open space, sports and recreational facilities.		
PPS23 Planning and pollution control, 2004	Requires LDDs to set out criteria against which to consider applications for potentially polluting developments.	<p>DPDs should address pollution control and remediation, from construction and demolition of waste management and mineral extraction developments.</p> <p>DPDs should consider the potential of cumulative impacts of development and prevent impacts from reaching critical load levels.</p>	Check DPD policies promote a reduction in pollution through objectives and appraisal criteria. Check site selection criteria considers the cumulative impacts of development.
PPG24 Planning and noise, 1994	<p>Development involving noisy activities should, where practicable, be sited away from noise-sensitive land uses.</p> <p>LPA's should consider whether it is practicable to control or reduce noise levels, or to mitigate the impact of noise through use of conditions or planning obligations.</p>	DPDs should seek to protect general environmental quality and amenity from noise pollution.	Check that policies consider the impacts of noise, and that site selection criteria reflects this accordingly.
PPS25 Development and flood risk, December 2006	Seeks to ensure that flood risk is taken into account at all stages of the planning process to avoid inappropriate development in areas at risk of flooding, and to direct development away from areas at highest risk.	Ensure that DPD's are informed by the SFRA and that the sequential test has been applied to site selection.	Check DPD policies consider the SFRA if applicable. Check that DPDs promote a reduction in flood risk by using the sequential test for site allocation and that there is the promotion of SUDs

Plan/Programme	Key Relevant Objectives	Implications for DPDs	Implications for SA/SEA
	<p>Requires LPA's to prepare Strategic Flood Risk Assessment (SFRA) as a means of appraising risk of flooding, and incorporating the effects of climate change, where that document would be a freestanding assessment that contributes to the SA of their plans.</p> <p>LPA's should manage risk through a sequential approach to the identification of suitable sites for development and seek to reduce flood risk to and from new development through location, layout and design incorporating sustainable urban drainage systems (SUDS).</p>		
MPS 1: Planning and Minerals	Sets out the key objectives for minerals planning which will contribute to achieving sustainable development. Policies include safeguarding mineral supply and possible transport links; protecting heritage and countryside by avoiding major mineral developments in certain	DPDs should reflect the policies in this guidance. They should conserve resources by appropriate domestic provision and timing of supply with suitable allocations and proposals. Policies should protect the environment, heritage and countryside, and encourage	Check that the MDPD policies promote sustainable mineral extraction and include measures to protect and enhance the environment.

Plan/Programme	Key Relevant Objectives	Implications for DPDs	Implications for SA/SEA
	designated areas; managing supply; protecting the environment and efficient use and restoration.	water or rail based developments. They should ensure efficient use of minerals and minimise the amount of waste.	
MPS2 Controlling and mitigating the environmental effects of mineral extraction in England, 2005	<p>Ensure that the environmental impacts caused by mineral operations and the transport of minerals are kept to an acceptable minimum.</p> <p>Encourage sensitive working, restoration and aftercare practices during mineral extraction and to conserve or enhance the overall quality of the environment once extraction has ceased.</p>	The MDPD should include policies aimed at minimising the environmental impacts caused by mineral extraction. They should also encourage sensitive working and appropriate and timely restoration.	Check the MDPD policies aim at protecting environmental impacts and encourage appropriate restoration.
MPG6 Guidelines for aggregates provision in England, 1994	Provides advice on ensuring adequate and steady supply of materials while ensuring that extraction and development are consistent with the principles of sustainable development. It also encourages the recycling of Construction and demolition waste.	The MDPD should ensure adequate aggregates provision as required in MPG.	Assess that the DPD has in place policies aimed at meeting the aggregate needs of society adequately.
MPG7 Reclamation of mineral workings, 1996	Requires effective and timely reclamation of mineral sites.	The MDPD should have policies on restoration/reclamation of mineral sites.	Check that the MDPD has a policy on effective restoration of sites.
MPG11 Control of noise at surface	Provides advice on how the	MDPD should include a policy on	Check that the MDPD includes

Plan/Programme	Key Relevant Objectives	Implications for DPDs	Implications for SA/SEA
mineral workings, 1993	planning system can be used to keep noise emissions from surface mineral workings within environmentally acceptable limits without imposing unreasonable burdens on mineral operators.	control of noise from mineral sites.	noise control in its Development Control policies.

Plan/Programme	Key Relevant Objectives	Implications for DPDs	Implications for SA/SEA
Regional			
Draft South East Plan, 2006	<p>To reduce waste generation and disposal and achieve sustainable waste management.</p> <p>To achieve effective management of mineral extraction and ensure adequate supply of minerals.</p> <p>To address the causes of climate change through reducing emissions of greenhouse gases</p>	<p>The WDPD should aim for sustainable waste management.</p> <p>The MDPD should have policies aimed at effective management of mineral extraction and ensure adequate supply to meet the County's mineral needs.</p> <p>The DPDs should tackle climate change through their policies aiming to reduce greenhouse gas emissions.</p>	<p>Check WDPD policies will lead to sustainable waste management.</p> <p>Test MDPD policies for effective mineral planning and adequate provision to meet the minerals needs of the County.</p> <p>Check that the DPDs have policies aimed at combating climate change.</p>

Plan/Programme	Key Relevant Objectives	Implications for DPDs	Implications for SA/SEA
Regional Planning Guidance for the South East (RPG9), 2001	<p>Establishes a framework for the region’s development and promotes growth in urban areas and brown field sites. The RPG requires development to be located and designed in a way that enables more sustainable use of the region’s resources.</p> <p>There should be continued protection and enhancement of the region’s biodiversity and enhancement of its landscape and built historic heritage.</p>	<p>The DPDs should ensure that policies safeguard appropriate locations and promote proper restoration of sites. Should promote use of brown field land and safeguard resources.</p>	<p>The SA should assess that the DPD policies are aimed at achieving well located and well designed development and promote efficient use of natural resources.</p>
South East Regional Waste Management Strategy, 2005 (Proposed Alterations to Regional Planning Guidance, South East)	<p>Waste authorities must provide management capacity for rapidly increasing recycling, composting and recovery. Waste planning authorities should plan for self-sufficiency and increase diversion of waste from landfill.</p>	<p>The WDPD should contain policies aimed at reducing waste generation, increased recovery and reduced landfilling, while providing for appropriate levels of waste treatment.</p>	<p>Check that the WDPD policies encourage integrated waste management, aim to reduce waste growth, increase recovery and reduce, landfilling, while providing for appropriate levels of waste treatment.</p>

Plan/Programme	Key Relevant Objectives	Implications for DPDs	Implications for SA/SEA
<p>South East Regional Mineral Strategy, 2005 (Proposed Alterations to Regional Planning Guidance, South East)</p>	<p>Development Plans should encourage development projects to use construction materials that reduce the demand for primary minerals wherever practicable. They should include policies to achieve effective management of mineral extraction, safeguard wharves and rail depots and achieve high quality after use and after care. They should promote modal shift to increase the proportion of minerals transported by rail and or water.</p> <p>Mineral planning authorities should plan to maintain a landbank of at least seven years of planning permissions for land-won sand and gravel, based on a stated county-by-county 'sub-regional apportionment'.</p>	<p>The MDPD should contain policies aimed at reducing the demand for primary resources and encouraging use of alternative transportation modes for minerals, while making provision to meet the stated sub-regional apportionment..</p>	<p>Check MDPD policies encourage sustainable mineral extraction and propose use of alternatives to road transportation, while making provision for the desired level of primary aggregates production.</p>

Plan/Programme	Key Relevant Objectives	Implications for DPDs	Implications for SA/SEA
<p>The South East England Regional Assembly: Sustainable Development Framework, 2001</p>	<p>Aims at achieving social progress that recognises the needs of everyone, effective protection of the environment, prudent use of natural resources and maintenance of high and stable levels of economic growth.</p> <p>Aims to reduce the risk of flooding improve the health and well being of population, improve efficiency in land use through the re-use of previously developed land, to reduce air pollution and address the causes of climate change.</p>	<p>The DPDs should aim to promote the objectives of the Sustainable Development Framework and include policies on reducing and avoiding flood risk, improving health, promoting sustainable transport modes to reduce greenhouse gas emissions and to manage resources prudently.</p>	<p>Check that DPD policies are in line with the Framework objectives.</p>
<p>Milton Keynes and South Midlands Sub-Regional Growth Strategy, 2005 (<i>sub-regional</i>)</p>	<p>Provides guidance on scale, location and timing of development and associated employment, transport and social infrastructure needed to achieve sustainable development in the sub-region.</p>	<p>DPD site proposals should take in to account the sub-regional strategy's spatial strategy and ensure consistency.</p>	<p>Check that DPD policies and proposals support the aims of the sub-regional strategy.</p>

Plan/Programme	Key Relevant Objectives	Implications for DPDs	Implications for SA/SEA
County			
<p>Buckinghamshire County Structure Plan 1991-2011, adopted 1996</p>	<p>Enhancing the quality of life in Buckinghamshire and maintaining economic buoyancy.</p> <p>Making the best use of available resources.</p> <p>Mitigate against environmental problems caused by HGVs, seek use of rail and waterways for moving freight.</p> <p>Reduce the number and severity of road accidents.</p> <p>The scale and location of development should have regard to the openness, amenity value protection of the landscape and nature conservation.</p>	<p>The DPD policies should contribute to a better quality of life in Buckinghamshire and promote sustainable use of resources. They should also promote environmental protection and encourage use of alternative transport modes.</p>	<p>Check that DPD policies are in line with structure plan objectives of enhancing the quality of life, protecting the environment and managing natural resources efficiently.</p>

Plan/Programme	Key Relevant Objectives	Implications for DPDs	Implications for SA/SEA
<p>Buckinghamshire Minerals and Waste Local Plan 2004-2016, adopted 2006</p>	<p>To secure an acceptable balance between society's need for minerals and the need to manage waste whilst conserving resources and protecting the environment.</p> <p>To give greater certainty as to the location and scale of future mineral working and waste management facilities.</p> <p>To ensure that any proposals for mineral working or waste management are environmentally acceptable and are accompanied by satisfactory and achievable proposals for restoration and after-use.</p>	<p>The LDDs should reflect the objectives of the Local Plan to ensure consistency in policy approach.</p>	<p>Check that LDD policies reflect the objectives set in the recently adopted MWLP.</p>
<p>Buckinghamshire Local Transport Plan (LTP) 2001-2006</p>	<p>The LTP aims to improve the safety of all who travel; contribute to an efficient economy; provide accessibility to everyday facilities for all; promote integration of all forms of transport; and land use planning leading to a better and more efficient transport system</p>	<p>The DPD policies should take into account the objectives in the LTP.</p>	<p>Check that the DPD policies are in line with LTP objectives and promote sustainable transport for minerals and waste.</p>

Plan/Programme	Key Relevant Objectives	Implications for DPDs	Implications for SA/SEA
Buckinghamshire Community Strategy (Buckinghamshire Community Plan 2005-2008)	Aims to balance and integrate the social, economic and environmental components of the community, meet the needs of existing and future generations, and respect the needs of other communities in the wider region.	DPD policies should reflect the aspirations of the community strategy.	Check that the DPDs are in line with the objectives set in the community strategy.
A Better Quality of Life in Buckinghamshire (Local Agenda 21 Strategy), 2001	<p>Working in partnership to provide a high quality of life and a sustainable future for the people of Buckinghamshire.</p> <p>Ensure protection of all semi-natural habitats. Seek the inclusion of policies on the creation of semi-natural habitats and buffer zones in local plans as a mitigation measure for developments or mineral extraction</p>	DPD policies should aim to enhance the quality of life in the County. They should also aim to protect environmental resources including semi-natural habitats.	Check that Plan supports LA 21 objectives.

Plan/Programme	Key Relevant Objectives	Implications for DPDs	Implications for SA/SEA
<p>Waste Strategy for Buckinghamshire 2001-2021</p>	<p>Secure a long term and sustainable strategy for the management of wastes within Buckinghamshire.</p> <p>Implement initiatives that will increase the sustainability of waste management and improve recycling and recovery rates.</p> <p>Promote waste minimisation and encourage self-sufficiency recognising that transportation of waste has environmental impacts.</p>	<p>Include waste policies seeking to reduce waste generated, increase recycling, and reduce landfill. Promote self sufficiency and promote use of alternative transport modes.</p>	<p>Check that WDPD policies promote sustainable waste management and seek alternatives to road transport.</p>

Plan/Programme	Key Relevant Objectives	Implications for DPDs	Implications for SA/SEA
<p>The Buckinghamshire Landscape Plan</p>	<p>Aim to achieve a productive and sustainable rural landscape retaining its essential character, local distinctiveness and quality.</p> <p>Conserve and manage existing landscape diversity to maintain landscape character and identity including the creation of new landscape features where appropriate.</p> <p>Ensure landscape interests are a major consideration of all stages of the planning process.</p> <p>Promote protection and enhancement of special landscapes.</p>	<p>The DPDs should include policies aimed at landscape protection and enhancement. They should also seek to create new landscape features where appropriate.</p>	<p>Check that DPDs include policies on landscape protection, enhancement and creation of new landscape features especially through restoration of mineral and waste sites.</p>

Plan/Programme	Key Relevant Objectives	Implications for DPDs	Implications for SA/SEA
Buckinghamshire Biodiversity Action Plan, 2000 - 2010	Provides a framework for action to conserve the county's wildlife by identifying 12 key wildlife habitats. The Action Plan is broken down into different types of actions comprising: Policy and legislation; habitat safeguard and management; species management and protection for key species within the County; future research and monitoring and communication and publicity.	The DPDs should aim to provide policies that conserve and promote the County's wildlife habitats. Policies supporting mitigation to overcome detrimental effects on wildlife as a result of proposed development should also be encouraged	Check that DPDs include policies on wildlife conservation and encourage methods of mitigation against impacts on wildlife as a result of waste facility development.
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Plan/Programme	Key Relevant Objectives	Implications for DPDs	Implications for SA/SEA
Other			

Plan/Programme	Key Relevant Objectives	Implications for DPDs	Implications for SA/SEA
Chilterns AONB Management Plan, 2002 - 2007	Provides a strategy for the conservation of the AONB and is complemented by an Action Plan which states what type of work will be undertaken in order to implement the strategy. The Management Plan covers a wide range of issues including nature conservation; land and water management; recreation and access; planning and development; the rural economy; and transport.	The DPDs should include policies aimed at protecting and enhancing the AONB.	Check that DPDs are in line with the objectives of the AONB Management Plan and contain policies which protect and enhance the AONB.

Appendix B Baseline Data, Indicators and Targets

The baseline table presents baseline data on Buckinghamshire. The main data is contained within the 'Data' column, and if there are any targets, these are included in the 'Target' column. Where no targets have been found, this column has been left blank.

The 'Indicator Status' column is shaded in either red, yellow or green. Red denotes that the data has indicated a negative feature of Buckinghamshire's physical, social or economic environment which will need to be taken into account when preparing the MWDF; green denotes that the data has indicated a positive feature; and yellow denotes that the data does not indicate a negative or a positive feature. The text in the 'Indicator Status' column relates to the future trends for the data in question. Where something is getting better, for example air quality is improving, the word 'Improving' is found. Similarly, where a situation is getting worse, for example water is becoming increasingly scarce, the word 'Worsening' is inserted. Where the trend is not known, a '?' has been inserted. There are other slight variations in the text where this is appropriate.

The 'Data Quality' column relates to the source and date of the data, where the information has come from a reliable source, such as a Government organisation, and the information is considered to be up to date, this is considered 'good'. If on the other hand the data is perhaps a few years out of date, but more recent data was not found to be available, this is considered 'poor'.

The 'Data Source' column indicates the source of the data in question, such as a particular report or website.

Indicator	Relevant SEA Topic / SA Topic	Relevant SA Objectives	Data	Target	Indicator Status	Data Quality	Data Source
Presence of Air Quality Management Areas (AQMA)	Air, Climatic Factors	SA1, SA2	Chiltern has no AQMAs, but the other three Districts: Aylesbury Vale, Wycombe, and South Bucks have identified AQMAs. The Aylesbury Vale AQMA encompasses a stretch of the A41 Tring Road and properties bordering it between the Oakfield Road/King Edward Avenue Junction and Queen Street in Aylesbury. The AQMA in Wycombe stretches along the M40 motorway throughout the district. Mainly 12m from kerbside. Any properties within this 12m the full plot is included. Small expansions at the M40 junctions. In South Bucks the AQMA comprises the M4, M25 and M40 and adjacent land. All three AQMAs have declared Nitrogen Dioxide as the main pollutant.	Local Air quality management targets for Nitrogen Dioxide are 40µg/m ³ as an annual mean, 5.00µg/m ³ as an annual mean for Benzene and 40µg/m ³ as an annual mean for Particulates. See Air Quality Management Objectives.	Improving	Good	www.airquality.co.uk/archive
Air quality in Buckinghamshire compared to National Air Quality Standard	Air, Climatic Factors	SA1, SA2	Buckinghamshire's air quality was assessed as generally good, with the estimated annual mean background levels of NO ₂ and PM ₁₀ across the four districts in Buckinghamshire between 2001 and 2004 well below the National Air Quality Standard. There are several continuous monitoring facilities mainly based in Wycombe District, and many roadside and passive monitoring sites throughout the County.	Improve air quality by meeting National Air Quality Strategy objectives for carbon monoxide, lead, nitrogen dioxide, particles, sulphur dioxide, benzene and 1-3 butadene. (Joint target with DEFRA) See above and Air Quality Management Objectives.	Improving	Good	www.bucksairquality.net/archiveData/archivedata.ihtml ; www.airquality.co.uk/archive/standards.php#std
Emissions from Waste Management Facilities	Air, Climatic Factors	SA1, SA2	The majority of municipal solid waste in Buckinghamshire is landfilled. The principle emission to air from landfill sites is landfill gas. Air quality monitoring and assessment by the local authorities has concluded that there are no significant air pollution issues associated with waste management facilities in Buckinghamshire.		?	Good	Buckinghamshire Municipal Waste Management Strategy SEA
Emissions from the transport of waste	Air, Climatic Factors	SA1, SA2	It is considered that the major pollutant from waste management is emissions from vehicles carrying waste around the County. There is a Data Gap regarding levels of emissions, or alternatively the use of sustainable transport modes for moving waste.				
Greenhouse gas emissions in Buckinghamshire	Air, Climatic Factors	SA1, SA2	In Buckinghamshire, the total global warming potential for Environment Agency regulated sites falling under the heading 'waste landfill' was 796,000 tonnes CO ₂ in 2004. Nationally municipal waste management accounts for about 2.4% of the national total emissions of carbon dioxide and 27% of the national total emissions of methane. These emissions are primarily from landfill gas, which is approximately two thirds methane and one third carbon dioxide. The 'global warming potential' of municipal solid waste is estimated to be equivalent to 2.32 tons of carbon dioxide per ton of landfilled waste.		?	Good	Buckinghamshire Municipal Waste Management Strategy SEA

Indicator	Relevant SEA Topic / SA Topic	Relevant SA Objectives	Data	Target	Indicator Status	Data Quality	Data Source
Population growth	Population and Human Health, Social	SA3, SA4, SA18, SA19, SA20	Buckinghamshire has a population of 479,026. This figure is thought to grow by 6.8% to 511,808 in predictions for 2026 with increases in the numbers of residents who are in the 65+ grouping. The largest District in Buckinghamshire is Aylesbury Vale which has a population of 165,748.		?	Good	Buckinghamshire Municipal Waste Management Strategy SEA, www.buckscc.gov.uk/research/population/total_populations/index.htm
Income deprivation	Population and Human Health, Economic	SA3, SA22	Income deprivation is low, over three quarters of the population live in areas which are the 30% least disadvantaged of the country. However there is one area which is within the 10% most deprived in England.		?	Good	www.buckscc.gov.uk/research/index.htm
Affluence of population	Population and Human Health, Economic	SA3, SA22	Household income in Buckinghamshire is 34% higher than the national average due to its thriving economy. There are low levels of unemployment. Buckinghamshire also has one of the highest business start-up rates in the Country.		?	Good	www.nomisweb.co.uk/reports/lmp/la/1967128578/report.aspx
Health	Population and Human Health	SA3, SA4	The overall population of Buckinghamshire is healthy, with 75% of people reporting that they are in good health. This compares favourably to the national (69%) and south east (71%) pictures. Whilst the pattern of health is broadly similar across the four Districts, there is some variation. Wycombe has the lowest percentage of people in good health (74%) and Chiltern the highest (76%). The percentage of those suffering from long-term illness (13%) is also lower than the regional and national figures (15% and 18% respectively).		?	Good	www.buckscc.gov.uk/research/index.htm
Life expectancy	Population and Human Health	SA 4	Across the districts in Buckinghamshire, females are expected to live to between 81 and 83, compared to the national average of 81 years of age. Men are expected to live to between 78 and 79, compared to the national average of 78. This puts Buckinghamshire in the top quartile nationally for males and the top two quartiles for females.		?	Good	Office of National Statistics, www.buckscc.gov.uk/research/index.htm
Crime levels and perception of crime	Population and Human Health	SA3, SA4	Crime figures for the region are relatively low and Buckinghamshire is regarded as a safe place to live with only 86 recorded crimes per 1,000 population, compared to 113 recorded nationally per 1,000 population. Targets for reducing vehicle crime in Bucks by 33% over a six year period were successfully beaten, seeing an overall reduction of 38% by 2004/2005. However public perception in 2002 surveys was not favourable, with 28% considering levels of crime to be too high, and 41% thinking that the County Council was not dealing with this effectively.	Buckinghamshire Local Authorities have agreed the following local crime reduction targets in order to achieve the national target by March 2008: Aylesbury Vale: 15% reduction Chiltern: 12.5% reduction South Bucks: 22% reduction Wycombe: 17.5% reduction.	Improving	Good	www.buckscc.gov.uk/research/index.htm

Indicator	Relevant SEA Topic / SA Topic	Relevant SA Objectives	Data	Target	Indicator Status	Data Quality	Data Source
Education levels	Population and Human Health, Social	SA3, SA4, SA18, SA19, SA20	In 2003/04, 65.9% of those studying for GCSEs within Buckinghamshire gained 5 or more A*-C grades, which is significantly higher than the national average of 50%. Within the County there are 185 primary schools, 34 secondary schools, 13 special schools and 6 higher education institutions, including the University of Buckingham and Buckinghamshire Chilterns University College. Buckinghamshire has a highly skilled workforce, 52% of the working age population are qualified to A-Level standard and 35% are educated to degree level. These are higher than both regional figures at 47% and 29%, and national figures at 43% and 25%.	Target figures for the county in 2007/08 are for 69% of pupils to attain 5 or more A*-C GCSE grades.	?	Average	Audit Commission, Buckinghamshire Municipal Waste Management Strategy SEA, www.buckscc.gov.uk/council_plan2005/Education.pdf
Number of sites designated as of nature conservation value	Biodiversity, Flora and Fauna	SA 5	Whilst 82% of Buckinghamshire is rural in nature, only 4% is protected by designation as a Special Area of Conservation, National Nature Reserve or Site of Special Scientific Interest. There are no Ramsar sites or Special Protection Areas in Buckinghamshire. However, there are two Special Areas of Conservation: the Chilterns Beechwoods SAC; and the Burnham Beeches SAC, which is also a National Nature Reserve. There are also 64 Sites of Special Scientific Interest in the County.		?	Good	Buckinghamshire Biodiversity Action Plan, http://www.english-nature.org.uk/special/ssi/searchresults.cfm?ssi_name=&frmcounty=1004 , English Nature and Joint Nature Conservation Committee
Condition of sites designated for nature conservation value	Biodiversity, Flora and Fauna	SA 5	84.19% of SSSIs in Bucks are meeting Public Service Agreement Targets with 48.19% of Buckinghamshire's SSSIs being in favourable condition and 39.9% in an unfavourable recovering condition.	Governments Public Service Agreement Target is that 95% of all SSSI areas are in a favourable or unfavourable condition by 2010. English Nature target of 95% of all SSSIs to be in favourable condition by 2010.	Improving	Good	www.english-nature.org.uk/special/ssi/reportAction.cfm?Report=sdr18&Category=C&Reference=1004
Wildlife habitat	Biodiversity, Flora and Fauna	SA 5	The Biodiversity Action Plan for Buckinghamshire and Milton Keynes proposes a framework for action to conserve the county's wildlife, identifying 12 priority habitats, these are: Calcareous Grassland; Chalk Streams; Earth Heritage; Farmland; Hedgerows; Lowland Heathland and Acid Grassland; Neutral Grassland; Rivers and Streams; Standing Open Water; Urban Habitats; Woodland.		Improving	Good	Buckinghamshire Municipal Waste Management Strategy SEA

Indicator	Relevant SEA Topic / SA Topic	Relevant SA Objectives	Data	Target	Indicator Status	Data Quality	Data Source
Sites designated for historical value	Cultural Heritage	SA 6	There are 141 Scheduled Ancient Monuments (SAMs) in Buckinghamshire; 34 registered historic parks and gardens; and 5,787 listed buildings within the County. In total there are over 16,000 archaeological sites or features recorded in the County. The overall economic strength of the region has meant that most listed buildings that could feasibly be restored have been. Within the South East, Buckinghamshire has 5% of the total number of SAMs; 9% of the registered parks and gardens; 8% of listed buildings; and 9% of the Conservation Areas. However, in the south east of England, the historic environment will have to cope with population increase and new housing development.		Worsening	Average	Buckinghamshire Municipal Waste Management Strategy, www.buckscc.gov.uk/countryside/index
Sites designated for geological/geomorphological value	Soil	SA 7	There is one Regionally Important Geological and Geomorphological site in Buckinghamshire, situated in the largest quarry at Whiteleaf Hill in the vale of Aylesbury.		?	Average	www.buckscc.gov.uk/countryside/index
Agricultural Land	Soil, Landscape and Townscape	SA7, SA8	Buckinghamshire is very rural in nature, and thus has a large amount of agricultural land. The majority of Grade I and II agricultural land is in the south of Aylesbury Vale District, and the north of Wycombe District. There are 109,900 ha of agricultural land within 1,891 individual holdings. Widespread economic and land use change are reducing the importance of agriculture in rural area, and there will therefore be increasing pressure to use agricultural land for housing development. Data Gap regarding amounts of high grade agricultural land per classification.		Worsening	Good	www.magic.gov.uk ; Buckinghamshire Municipal Waste Management Strategy SEA
Landscape characteristics	Landscape and Townscape	SA8	Buckinghamshire is a predominately rural county with over three quarters of the land being farmland or woodland. Only 6% of the County is classified as urban (settlements of 4,000 population or more). The Green Belt extends to 50,000 ha in the southern part of the county, which is 32% of the total area of Buckinghamshire. Within Buckinghamshire, 18% of land is designated as Area of Attractive Landscape, covering nearly 30,000 ha, and a further 3% is designated as Local Landscape Area (5,307 ha). There are four major county parks within the County, two of which have been used as sets for film production by companies located at the nearby Pinewood Studios. The Countryside Agency (now known as Natural England) has identified a number of Landscape Character Areas within England of which the Chilterns (Area 110) and Upper Thames Clay Vales (Area 108) fall in part within Buckinghamshire. Threats to this landscape are identified as; gradual		?	Good	Buckinghamshire Municipal Waste Management Strategy SEA

Indicator	Relevant SEA Topic / SA Topic	Relevant SA Objectives	Data	Target	Indicator Status	Data Quality	Data Source
			disappearance of remnant parkland, reduction in the quality of hedgerows and the vulnerability of elements of ancient countryside such as narrow winding lanes, organic field patterns and mature tree specimens to change.				
Presence of Areas of Outstanding Natural Beauty	Landscape and Townscape	SA8	Half of the Chilterns Area of Outstanding Natural Beauty falls within Buckinghamshire (40,000 ha), making up 27% of the land designated as of importance for landscape.		?	Good	www.buckscc.gov.uk/countryside/country_parks/index
Locations of waste sites in relation to landscape considerations	Landscape and Townscape, Waste	SA8, SA14	The major waste management facility in the Chilterns AONB is the High Heavens waste disposal complex. Within the Buckinghamshire part of the AONB, there are also 3 small landfill sites: Dundridge Manor, Ivinghoe Aston, and Meadhams Farm. There are no landfill/landraise or other major waste management facilities within the Areas of Attractive Landscape, although Wapseys Wood landfill site is adjacent to an Area of Attractive Landscape.		?	Good	Buckinghamshire Municipal Waste Management Strategy SEA
Percentage of new development on Previously Developed Land	Landscape and Townscape, Material Assets, Waste	SA8, SA9, SA14	In 2003/04 73% of housing completions in the county were on brownfield land and only 27% on greenfield land. District-by-District, the percentages of housing completions on brownfield land in 2004/05 were these: Aylesbury Vale - 42%; Chiltern - 97%; South Bucks - 99%; Wycombe - 95%. Opportunities to build on previously developed land are likely to decline as pressure on land for housing and other land uses increases. Land available for landfill will become increasingly scarce. This effect is likely to be felt particularly strongly in Buckinghamshire, where development is controlled by the Green Belt and AONB, and there is consequently a limited supply of employment land and business parks.	Government Target of 60% of new development must be on previously developed land by 2008, this has been adopted in the Buckinghamshire Community Plan	Worsening	Good	Environment Agency, ODPM, Buckinghamshire Municipal Waste Management Strategy SEA, www.buckscc.gov.uk/strategic_planning/development_monitoring/housing_monitoring03_04/green_brown_03_04.htm
Amount of Unused Previously Developed Land	Landscape and Townscape, Material Assets	SA8, SA9	In 2004 Buckinghamshire was recorded as having 637 ha of previously developed land that is unused or may be available for redevelopment, 175 ha of this land was recorded as suitable for housing. The majority of previously developed land that is unused or may be available for redevelopment (547 ha) is in Aylesbury Vale district. Buckinghamshire has 6% of the total land available for development in the South East.		?	Good	Buckinghamshire Municipal Waste Management Strategy SEA

Indicator	Relevant SEA Topic / SA Topic	Relevant SA Objectives	Data	Target	Indicator Status	Data Quality	Data Source
Average House Prices	Material Assets	SA9	At the end of 2005 average house prices for Buckinghamshire were considerably higher than the national average of £191,237 as they were estimated to be approximately £307,451. This £307,451 figure represents an increase of 8% on the previous year's figure. District prices within the County are markedly different, at the top end of the market, houses in South Bucks are on average £437,466, whereas in Aylesbury Vale they are on average £241,385.		Depends on Approach	Average	news.bbc.co.uk/1/shared/spl/hi/in_depth/uk_house_prices/counties/html/country10.stm
Water Courses	Water	SA10	The Buckinghamshire area encompasses all or part of four distinct river catchments: the River Thames, River Wye, River Colne and Upper River Great Ouse. Other rivers within the area include Hambleden Brook, the River Thame, Ouzel, Ray, Chess, Misbourne, Bear Brook and Colne Brook.		Static	Good	www.buckscc.gov.uk/emergency_planning/flood_warning_update.htm ; www.environment-agency.gov.uk
Water Quality	Water	SA10	Within the Buckinghamshire area, the water quality of rivers appears to be highly at risk from pollution. Furthermore the risk of contamination from pollution to groundwater sources appears to be relatively high. The threat of contamination of lakes does not appear significant. However, with regards to waste management, no major water quality and contaminations issued have been identified.		Worsening	Good	http://www.environment-agency.gov.uk/subjects/waterquality/?lang=e
Water Resources	Water	SA10	The South East region in general has suffered from a very dry period over the last 16 months (as at April 2006). This has resulted in low ground water and reservoir levels, with a subsequent hosepipe and sprinkler ban being imposed. Stress on the water resources has become apparent through the virtual disappearance, in some parts, of the River Misbourne. Reservoirs within the southern region are currently measuring, on average 88% full. However, with 75% of water coming from groundwater sources, these sources are currently very low.		Worsening	Average	www.environment-agency.gov.uk ; www.buckscc.gov.uk/emergency_planning/water_resources_in_Bucks.htm ; www.buckscc.gov.uk/strategic_planning/structure_plan/structure_plan.pdf
Flooding	Water	SA11	Flooding within the County is not common but has occurred in recent years when water levels have risen following periods of sustained rainfall. This was the case for the 2003 floods along the River Thames and a contributory factor to the groundwater floods in the Chilterns 2000/01. A number of rivers within Buckinghamshire are classified as a risk for flooding, some of which are considered of significant risk. Some rivers have flood defence mechanisms. Overall, there does not appear to be an substantial area liable to flooding.		Worsening	Average	www.buckscc.gov.uk/emergency_planning/ff_cause_and_effect_2003.htm

Indicator	Relevant SEA Topic / SA Topic	Relevant SA Objectives	Data	Target	Indicator Status	Data Quality	Data Source
Annual production of primary won aggregates and secondary/recycled aggregates	Minerals, Material Assets	SA12, SA 9	In 2004 Buckinghamshire produced 1.3 million tonnes of primary won aggregates, a slight increase on the amount produced in the previous year, but generally consistent with recent production levels.	National guidelines equate to production of 13.25mtpa of primary aggregate in SE England to 2016, with additional provision of secondary/recycled aggregates. Bucks to make provision for 0.99mtpa of primary production and (provisionally) 0.6mtpa of secondary/recycled aggregates..	Improving	Good for primary aggregates, poor for secondary/recycled aggregates	SE Aggregates Monitoring Report 2003; National & Regional Guidelines for aggregates provision (ODPM); Draft South East Plan
Aggregate Consumption	Minerals, Material Assets	SA12, SA 9	Annual consumption for the South East was thought to be 34.7mt in 2001 and figures reported for the period of 1987-1993 were 2.1mtpa for Buckinghamshire itself.	Forecast demand for aggregates in England over the period 2001-2016 is around 250mtpa, of which around 36mtpa would arise in the South East. No specific figure for Bucks.	?	Poor	National & Regional Guidelines for aggregates provision (ODPM); www.odpm.gov.uk/index.asp?id=1144185 ; http://www.buckscc.gov.uk/development_control/min_local_plan/minerals_2000_chapter3.pdf
Permitted reserves of primary won aggregates	Minerals, Material Assets	SA12, SA 9	In 2003, Buckinghamshire was thought to have 14 million tonnes of permitted reserves, equating to a 14.5 year landbank - twice that of the government requirement. This figure is revised in the latest MWLP to an implied 9.5 years. The latest estimate is that reserves at the end of 2004 totalled 8.5 million tonnes.		Worsening in the long term	Average	www.southeast-ra.gov.uk/meetings/advisory/minerals/minutes-050905.pdf ; Buckinghamshire Minerals and Waste Local Plan 2004-2016 ; SE Aggregates Monitoring Surveys and Annual Reports
Aggregate planning applications, permissions and refusals	Minerals	SA12	During 2004, one application for sand and gravel extraction was permitted. It was for additional material (totalling 42,000 tonnes) from an existing site. The site is in the Green Belt. There were no planning permissions or refusals for secondary materials or aggregate recycling sites.		?	Good	SE Aggregates Monitoring Report 2003; BCC's own records of planning applications submitted and determined
Sand and Gravels - Sales, Permissions and Reserves	Minerals	SA12	At the end of 2004 Buckinghamshire had 8,519,000 tonnes of sand and gravel reserves. Production in the year totalled 1,312,975 tonnes.		?	Average	SE Aggregates Monitoring Report 2003
Active and Inactive Aggregate sites	Minerals, Material Assets	SA13	There are three inactive sand and gravel sites and eight active ones.		?	Average	SE Aggregates Monitoring Report 2003

Indicator	Relevant SEA Topic / SA Topic	Relevant SA Objectives	Data	Target	Indicator Status	Data Quality	Data Source
Location of Minerals Sites in the County	Minerals	SA13	Sand and gravel workings and permitted reserves are mainly found in the south east of Buckinghamshire, including: Springfield Farm; Little Marlow; East Burnham; Berry Hill Farm; Eton Rowing Course; All Souls Farm; Park Lodge; The Lea; Denham Park Farm; Warren Farm; and Hyde Farm. There are permitted reserves for greensand working in the north east of Buckinghamshire at Rammamere Heath. There are two chalk quarries in the east of the county at Ivinghoe Aston, and Pitstone. There are a few brickclay quarries in north west (Calvert and Woodham), and the south east (Dundridge Manor; Meadhams Farm; and Froghall). All permitted mineral sites, apart from those for sand and gravel, are currently inactive or dormant.		?	Average	Buckinghamshire Minerals and Waste Local Plan 2004-2016
Location of Minerals Sites within Sensitive Areas	Minerals, Landscape and Townscape, Biodiversity	SA13, SA8, SA5	The majority of sand and gravel deposits that are remaining are located in environmentally sensitive areas and are heavily protected by environmental planning policy.		Static	Good	Buckinghamshire Municipal Waste Management Strategy SEA
Location of Major Waste Facilities in the County	Waste	SA14	The major municipal waste management facilities in Buckinghamshire (including Wapseys Wood landfill, Calvert landfill, and High Heavens waste disposal complex) are in rural or semi-urban areas. The capacity of landfill sites in the countryside will decline as sites become full. The main landfill/landraise sites in Buckinghamshire taking inert waste are found in the north east (Ivinghoe Aston Golf Driving Range, and Ivinghoe Aston); in central Buckinghamshire (Dundridge Manor); and the south and south east (High Heavens; Little Marlow; East Burnham; All Souls Farm; Park Lodge; Denham Park Farm; and Warren Farm). The main landfill/landraise sites taking both inert and non-inert waste are found in the north west (Calvert); and the south east (Meadhams Farm; Springfield Farm; and Wapseys Wood/Hyde Farm).	The Landfill Directive 1999 sets challenging targets for the diversion of biodegradable municipal waste. The UK targets are: By 2020 to reduce biodegradable municipal waste landfilled to 75% of that produced in 1995, 50% by 2013 and 35% by 2020. The National Waste Strategy 2000 expects value to be recovered (either recycling, composting or energy recovery) from 40% of municipal waste by 2005; 45% by 2010 and 67% by 2015. Waste Strategy for Bucks (2001) has adopted the above targets.	Worsening	Good	Buckinghamshire Municipal Waste Management Strategy SEA, Buckinghamshire Minerals and Waste Local Plan 2004-2016
Recycling	Waste, Social	SA14, SA19	In 2004/05 approximately 30% of municipal waste was recycled. Buckinghamshire is in the top ten UK counties for recycling.	County target that by 2025 overwhelming majority of materials will be reused or recycled or have value recovered from them. There is also a national target of 33% for household recycling by 2016.	Improving	Average	Buckinghamshire Municipal Waste Management Strategy SEA, www.bucksinfo.net/recycleforbuckinghamshire/waste-strategy-consultation/

Indicator	Relevant SEA Topic / SA Topic	Relevant SA Objectives	Data	Target	Indicator Status	Data Quality	Data Source
Household Waste Collection	Waste, Social	SA14, SA 19	The Best Value Performance Indicator for percentage of the population served by kerbside collection or within 1km of a recycling centre averages at 96% in Buckinghamshire. The net cost of waste management in Buckinghamshire averages out at £101 per household. This is made up of £51 from the District Councils and £50 from the County Council.		Improving	Good	Buckinghamshire Municipal Waste Management Strategy SEA
Cost of waste disposed per tonne of municipal waste	Waste	SA14	Costs of disposal were £36.22 per tonne for the year 2004/05	Targets for 2007/08 are £49.50	Improving	Good	www.buckscc.gov.uk/council_plan2005/Environment.pdf
Incidences of Fly-tipping	Waste, Landscape and Townscape	SA8, SA14	Levels of fly tipping within Buckinghamshire were recorded as 13,320 over a three year period prior to the 2006 review of Anti-Social Behaviour in the County. In May - July 2005 there were on average approximately 250 fly tipping incidents per month. In 2002 - 2003 (in which time there were between around 250 - 400 incidents per month) it cost Buckinghamshire's local authorities £500,000 in taxpayers money to clear and dispose of dumped rubbish. Following the introduction of the Illegal Dumping Costs Campaign in Buckinghamshire, the number of incidents has fallen from a high of 400 per month, to an average of 250.	The Public Service Agreement Target One has set a target for the reduction to no more than 9,000 incidences over three years and the attainment of satisfactory levels of satisfaction in the residents survey.	Improving	Good	Buckinghamshire Municipal Waste Management Strategy SEA, www.buckscc.gov.uk/cabinet_papers/cabinet/cab_20060508_item7a.pdf
Percentage of Waste arisings which have been sent by the Authority to be recycled	Waste	SA14	In 2004/05 19.67% of the waste arisings were sent to be recycled by the County authorities. An improvement on the previous years 18.71% figure.	Targets for the County to recycle waste arisings are 21% for the period of 2005 - 2007.	Improving	Good	http://www.buckscc.gov.uk/council_plan2005/BVPI1.xls
Amount of waste composted	Waste	SA14	County figures for 2004/05 showed that 9.7% of household waste was composted. Around 45,000 home compost bins have been distributed throughout Buckinghamshire over the past six years, this equates to around 20% of households owning a home compost bin. Research suggests that home composting can minimise residual waste production by as much as 130kg per year (around 9% of the total per household).	Targets for the County to recycle waste arisings are 21% for the period of 2005 - 2007.	Improving	Good	Buckinghamshire Municipal Waste Management Strategy SEA
Percentage of household waste arisings which have been landfilled	Waste	SA14	In 2004/05 70.57% of waste arisings were landfilled which saw a drop from 2003/04 figures of 73.58%.	For the period 2007/08 a target of 62% has been set for the reduction in landfilling of waste arisings and for this to be further reduced to 35% in 2020.	Improving	Good	www.buckscc.gov.uk/council_plan2005/Environment.pdf ; www.buckscc.gov.uk/waste_strategy/waste_strategy.pdf

Indicator	Relevant SEA Topic / SA Topic	Relevant SA Objectives	Data	Target	Indicator Status	Data Quality	Data Source
Waste Management Capacity	Waste	SA14	Annual waste management capacity for Buckinghamshire was thought to be 2.50 million tonnes in 2004. Municipal provision was 0.56mt.	County capacity should grow by approximately half to 3.70mt by 2021, and municipal capacity to 0.72mt. At 2021 about 1.2mt of commercial and industrial waste should be managed in Buckinghamshire, this figure is an approximate increase of 37% on presently estimated levels.	?	Average	Buckinghamshire Municipal Waste Management Strategy SEA, www.buckscc.gov.uk/minerals_waste_plans/local_development_framework/waste_dpd_questionnaire.htm
Number of waste management facilities	Waste, Social	SA14, SA19	There are 9 household waste recycling centres within Buckinghamshire which recycle on average 30% of the 275,000 tonnes of rubbish created each year in the county. The major municipal waste management facilities including Wapseys Wood landfill, Calvert landfill and High Heavens waste disposal complex, are in rural or semi-urban areas. Recycling facilities are also offered at over 200 other venues within the County. The majority of residual waste is managed within the county, though there are no household waste transfer stations for residual waste.		Improving	Good	www.bucksinfo.net/recycleforbuckinghamshire/why-recycle/ ; www.buckscc.gov.uk/waste_strategy/waste_management/index.htm
Waste used to recover energy	Waste, Material Assets, Energy Generation and Use	SA14, SA9, SA15	0.3% of waste was used to recover heat, power or other energy in 2003/04 in Buckinghamshire. The amount of electricity generated from landfill gas has increased over the past three years.	National target to increase the value from recovered household waste to 40% by 2005, 45% by 2010 and 67% by 2015.	Improving	Average	www.defra.gov.uk/environment/waste/strategy/guidance/bestvalue/05.htm ; DEFRA; BCC; Environment Agency
Energy from renewable sources	Energy Generation and Use, Waste	SA15, SA14	Three large landfill sites within Buckinghamshire based in Calvert, Newton Longville and Wapseys Wood produce electricity through the burning of methane which is then fed into the National Grid. Similarly Aylesbury sewage plant uses sewage gas as a source of energy.	National target of at least 10% of all energy from renewable sources by 2010. The South East Plan sets a regional target of increasing the proportion of electricity generated from renewable sources to 8% by 2016 and to 16% by 2026. The Thames Valley and Surrey sub-region, which includes Buckinghamshire, is expected to provide about a quarter of this.	Improving	Average	Buckinghamshire Municipal Waste Management Strategy SEA, http://www.buckscc.gov.uk/strategic_planning/structure_plan/structure_plan.pdf

Indicator	Relevant SEA Topic / SA Topic	Relevant SA Objectives	Data	Target	Indicator Status	Data Quality	Data Source
Main transport networks	Transport and Access	SA16	Buckinghamshire is well served by roads and has excellent links to London. The M4, M40 and M25 all run through the county and there are several other busy A roads such as the A41, A413 and the A418. However they are frequently congested. There are various road improvement works taking place across the County, including an Integrated Transport Study at Handy Cross, Corridor Improvement on the A40 and works on the A418 to improve strategic links between Aylesbury and Milton Keynes. In the Chilterns Area of Outstanding Natural Beauty the country lanes are over-used and often congested.	The Replacement Buckinghamshire County Structure Plan 2001-2016 aims for a 5% reduction in the number of HGVs using the non-strategic highway network in the rural Transport Strategy Areas between 2000 and 2015 and further 5% reductions by 2010 and 2015	Improving	Good	Buckinghamshire Municipal Waste Management Strategy SEA, http://www.buckscc.gov.uk/roadworks
Road Safety	Transport and Access, Population and Human Health	SA17, SA3, SA4	The Local Safety Scheme Team is responsible for improving safety on the County's roads through implementing engineering measures. It is currently involved in over 30 schemes with a budget of £1m. Two of the major current schemes are on Wood Lane, Iver, and on the A41 Casualty Reduction Project. Buckinghamshire County Council is also involved in the Chilterns Traffic Management Project which looks at implementing new and innovative ideas in rural traffic management to protect the Chiltern area and its residents.		Improving	Good	http://www.buckscc.gov.uk/road_safety/casualty_reduction/safety_schemes_index.htm
Number of people killed or seriously injured in road traffic collisions	Transport and Access	SA16	There were 392 people killed in Buckinghamshire in 2004/2005, down from 395 on the previous year	The target within the County for 2007/08 is 309	Improving slowly	Good	www.buckscc.gov.uk/Research/Transport/index.htm
Car ownership	Transport and Access	SA17	There are approximately 285,511 cars for the 188,086 households within Buckinghamshire, therefore 87% of the population within the County own 1 or more car. 12% of households have 3 or more cars or vans. This proportion is higher than both regional and national figures which are 81% and 73% respectively.		?	Good	www.buckscc.gov.uk/Research/Transport/index.htm
Car usage	Transport and Access	SA17	68.7% of the Buckinghamshire population travel to work by car compared to 8% who travel on public transport.	Reduction of up to 60% for residents travelling to work by car and increases in public transport usage to 15% have been set for 2011	?	Good	http://www.areaprofiles.audit-commission.gov.uk/(oyljeseq1k5odja13n5ifj45)/DataProfile.aspx?entity=0
Response rates to County Council consultation events	Social	SA 19	Data Gap				
Employment	Economic	SA22, SA23	Buckinghamshire recorded employment levels of 81.7% for the year 2003/04, which was up 3% on the previous years figure of 78.3%. These figures are also higher than national employment levels which were 76.48% for the same period. Unemployment for the county was 3.0% in 2003/04, which was lower than the national average of 4.64% for the same period.		Improving	Good	www.areaprofiles.audit-commission.gov.uk/(nmfhgz45smijlx55i211igj5)/ChartPage.aspx?id=10001219&chartIndex=9&screenWidth=1004&screenHeight=623

Consultation Responses on the SA Scoping Report

Relevant section of Scoping Report	Comment	Action Taken
Responses on the final SA Scoping Report June 2006		
Environment Agency – comments received 7th September 2006		
2.6-2.7	The document should clearly differentiate between MSW and C&I waste arising within the county, and waste imports from London.	SA does not need to do this except to the extent that imports create different impacts on the environment and sustainability. No action taken
2.6-2.7	Landfill breakdown could also include the potential for and the existence of 'Single non-reactive hazardous waste cells' within existing or proposed waste sites.	Not an SA issue. No action taken.
Table 2.1	The table should refer to the Hazardous Waste Directive, the Water Framework Directive, and the 'EU Thematic Strategy for the prevention and recycling of waste'.	Include reference to Hazardous Waste Directive and Water Framework Directive in review of Plans and Programmes. No action regarding EU Thematic Strategy for the Prevention and Recycling of Waste as this document is only a proposal.
2.27	Gap analysis is suggested to determine land in Grades 3a and 3b.	Data gap identified – no data which separates grades 3a and 3b.
2.40-2.42	Information is now available on landfill void capacity (and average life remaining), and waste arising from 2004. It would be useful for future drafts of the document to take note of this information.	Use data on landfill void capacity and waste arising from 2004 in future reports.
Flood Risk	<i>(Summarised)</i> Mineral and waste site allocations should be informed by a Strategic Flood Risk Assessment. Sites should be situated outside FZ3, where possible. Undertaking SFRA will allow the sequential test to be undertaken, and development to be steered away from sites in the floodplain.	Include reference to new PPS25 in Table 2.1 and Appendix A regarding plans and programmes.

Relevant section of Scoping Report	Comment	Action Taken
Groundwater and contaminated land	The requirements of the Water Framework Directive should help to inform the allocation of mineral sites or waste management facilities. The MWDF must consider the protection of groundwater when allocating minerals and waste sites. Refers to EA's Regulatory Guidance Note on this subject (currently being revised). Guidance document which may be helpful for the later Sustainability Appraisal stages: EA/WCC/ GCC / <i>Guidance on the hydrological best practice for minerals development in the Cotswold Water Park.</i>	Include reference to Water Framework Directive in Table 2.1 and Appendix A regarding plans and programmes. See above re Water Framework Directive.
Water resources	The document does not mention the Water Act 2003. This is an important piece of legislation which addresses issues such as abstractions, dewatering and discharge related to activities at mineral workings and waste sites.	Too specific to be included in this document. No action taken.
Water resources	Specific groundwater bodies are not mentioned. As Bucks contains both major and minor aquifers and mineral workings involve the excavation and processing of raw materials, this is an important point that should be addressed. In addition the impact of waste facilities on water quality and the resource issues where water is required for processing activities also needs to be considered.	Not clear what is meant by reference to 'specific groundwater bodies'. Groundwater issues at specific sites will be carried out on a site-by-site basis. No action taken.
Ecology	Wherever possible, the opportunity for biodiversity enhancement and restoration schemes at mineral sites and waste facilities should be considered.	To be considered in site-specific appraisals.

Relevant section of Scoping Report	Comment	Action Taken
Countryside Agency – comments received 2nd August 2006		
	<p>Information regarding Landscape Character Areas in the South East is found in Vol 7 of the Countryside Character series (webref www.countryside.gov.uk/LAR/landscape/CC/index.asp).</p> <p>Landscape Character Assessments are crucial in planning for landscape level change (ref <i>"Landscape Character Assessment: Guidance for England and Scotland"</i> April 2002). Website of the Countryside Character Network (webref www.ccnetwork.org.uk) exists to share good practice in LCA and provides a valuable tool for accessing a database of each Character Assessment as well as relevant publications, research studies, and other baseline data.</p>	<p>Take account of websites and relevant information included where necessary in baseline section of future reports, and subsequent monitoring.</p>
	<p>The impact of the plan on the character and quality of landscapes should be assessed. Countryside Quality Counts (webref www.cqc.org.uk) is a national project bringing together existing datasets describing aspects of our rural areas, as well as developing and measuring indicators of change in countryside and landscape quality. The next phase will see the development of methods of analysing the significance of the change. This provides data and methodologies which can inform SEAs.</p>	<p>Account has been of landscape issues in the assessment of the site-selection methodology and in looking at individual sites. Assessment of detailed impacts of specific proposals will be a matter for the development control stage.</p>
	<p>You should consider whether any land in the plan area is designated as conditionally exempt from capital taxes on the grounds of outstanding scenic, scientific or historic interest. These are considered to be landscapes of national importance and the impact of the plan on them should be assessed where appropriate. (webref www.hmrc.gov.uk/heritage/lbsearch) given to current list of such sites.</p>	<p>Designated sites are to be given consideration</p>
	<p>Potential impacts on access land, public open land and rights of way should be fully considered. The relevant map of all open countryside and registered common land which has new rights of open access was published in July 2005, with the rights commencing on 31 October 2005.</p>	<p>Potential impacts on the areas mentioned will be considered. These topics are included as potential monitoring indicators.</p>

Relevant section of Scoping Report	Comment	Action Taken
	Refers to annual State of the Countryside reports (both national and regional) - webref given.	Look at this website and include relevant information where necessary in baseline section of future reports and subsequent monitoring.
	All the above help to capture and quantify the current state of England's rural areas, in order to help manage future plans, policies and changes in order to retain the unique aspects of our countryside. Therefore we would wish to see these methodologies incorporated within the SEA where appropriate as part of the identification of the baseline indicators which will be used to monitor changes. We would also expect details of the frequency with which monitoring and assessment of these indicators will take place.	
English Nature		
	No comments received	No action taken
English Heritage		
	No comments received	No action taken
Aylesbury Vale District Council – comments received 12th September 2006		
2.7	There is no reference to Newton Longville as a site for waste, but see para 2.43 where this site is listed as a Bucks landfill site.	Noted
Table 2.1	The Waste Strategy for Bucks 2001-21 has now been replaced by the Joint Municipal Waste strategy for Buckinghamshire.	The Waste Strategy for Bucks 2001-2021 is in the process of being replaced by the Joint Municipal Waste Strategy for Bucks, but has not yet been replaced. No action taken.
2.19	Although AQMAs have been declared these are as a result of pollution from vehicle exhausts. Landfill sites have had no influence on their designation.	The Scoping Report makes no link between landfill sites and designation of AQMAs. The report merely describes baseline data relating to Bucks, and AQMAs are part of this. No action taken.

Relevant section of Scoping Report	Comment	Action Taken
Table 2.2	The reference to AQMAs is out of context for AVDC where the AQMA is for a small part of the Tring Road where the issue is the proximity of residential properties to the back line of the pavement, and not waste and minerals issues.	The Scoping Report baseline section is not confined to minerals and waste issues, but covers all aspects of the environment as well as economic and social issues. AQMAs are mentioned as part of the data on the current state of the environment in Bucks. No action taken.
Table 3.1	Objective SA3 should reflect the importance of siting waste facilities so that they are accessible to the population while at the same time protecting the living conditions and amenities of local residents.	Accessibility will be considered where necessary, but most of the sites will not be for public access. No action taken.
Page 35	Re 'Implications for the SA/SEA': I am not sure that MDPDs can have objectives to reduce the number of journeys generated, in view of the growth agenda and the Joint Waste Strategy which is looking to increase activities for recycling etc, and also until a decision is taken on how many waste treatment facilities will be provided. Is it also realistic to look at waste increasing the amount of waste transported by rail, when currently rail is used for importing waste into Bucks for landfill, if in the same paragraph there is an objective to reduce waste to landfill (contradiction?).	It is a valid objective to aim to reduce the traffic related to minerals and waste development. Use of sustainable transport will score highly against the SA objectives. Increasing transport by rail does not mean increasing the amount of waste going to landfill. Moving waste up the hierarchy is considered under SA objective 14. No action taken.
Page 63	Cost of disposal at £36.22 is an average - is there nothing more up to date than 2004/05?	If more up to date information is available, baseline will be amended.
Page 64	Ref SA14 - Target says 21% for 2005-7, when on page 6 para 2.6 states it is around 30%. Also the target is repeated on page 64 for two different areas: 'Percentage of waste recycled' and 'Amount composted' are two different approaches to reducing waste to landfill which should not be linked by having the same target.	Updated and corrected figures will be used in plan monitoring.
Chilterns Conservation Board – comments received 17th August 2006		
Table 2.1	Welcome and support inclusion of the Chilterns AONB Management Plan, and trust that it will be fully considered in drafting the MWDF.	No action taken.

Relevant section of Scoping Report	Comment	Action Taken
Para 2.29	Reference should be to the “conservation and enhancement” of the AONB rather than “protection”, to comply with CROW Act and PPS7.	Amend SA8 to read “to conserve and enhance the quality and distinctiveness of landscapes and townscapes, in particular within the AONB. PPS7 and the CROW Act will be considered.
Table 3.1	In SA8, the reference should be to “conserve and enhance” rather than “maintain and enhance” the quality and distinctiveness of landscapes.	Amend SA8 to read “to conserve and enhance the quality and distinctiveness of landscapes and townscapes, in particular within the AONB”.
Appendix A (p.53)	References in columns 3 and 4 should be to “conserving and enhancing”, not “protecting and enhancing”.	Amend SA8 to read “to conserve and enhance the quality and distinctiveness of landscapes and townscapes, in particular within the AONB.
Appendix B (p.59)	Indicator ‘Presence of AONB’ is meaningless, especially when linked to no specific target. Indicator/target should be based on a qualitative assessment, as the quality of the landscape could be detrimentally affected by development. Same comment could also apply to the indicators that refer to “Locations of waste sites in relation to landscape considerations” (p.60), “Water courses”, “Water quality”, “Water resources” and “Flooding” (pp 60-61).	Qualitative assessment can best be undertaken in the context of specific proposals. Whether or not a proposed site is located in the AONB is considered to be a reasonable initial indicator of the effects of the DPD. Water courses, water quality and water resources are considered as valid indicators.