



Bath and North East Somerset
Core Strategy Development
Plan Document

Sustainability Appraisal Report

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Bath & North East Somerset Council

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Annex A: Review of Relevant Plans, Programmes and Strategies

Annex B: Baseline Data

Annex C: Core Strategy Spatial Options consultation document (2009) Summary of Sustainability Appraisal Findings

Annex D: Submission Core Strategy Policy Appraisal Matrices;

Annex E: Appraisal of the Submission Core Strategy, Urban Extensions Commentary;

Annex F: Mitigation and Residual Effects of the Submission Core Strategy Policies;

Annex G: Recommendations and Residual Performance of Submission Core Strategy Policies;

Annex H: Potential Cumulative Effects; and

Annex I: Contextual Indicators Monitoring Programme.

Glossary

Acronym and Title	Explanation
AAP (Area Action Plan)	A Development Plan Document that provides a detailed planning policy framework for a part of the Council's area that is a key area for change or conservation.
AMR (Annual Monitoring Report)	A document within the LDF that monitors progress in implementing the Local Development Scheme and the effectiveness of the Council's adopted policies.
Core Strategy	A Development Plan Document that sets out the key elements of the planning framework, including strategic objectives and core policies, with which other DPDs must be in conformity.
Development Plan	The statutory framework for planning decisions, comprising the Regional Spatial Strategy and the Development Plan Documents prepared by local planning authorities (including the County Council and District Councils).
DPD (Development Plan Document)	The main type of Local Development Document which form part of the Development Plan, and include a Core Strategy, site specific allocations, development control policies and area action plans.
LDD (Local Development Document)	The main group of documents within the LDF, comprising Development Plan Documents and Supplementary Planning Documents.
Local Plan	A plan prepared by district, unitary and national park authorities but which is being superseded by Development Plan Documents.
PPG (Planning Policy Guidance)	Government planning guidance notes on a number of different topics, now being incrementally replaced by Planning Policy Statements.
PPS (Planning Policy Statement)	Government planning policy statements on a number of different topics which are being introduced to replace Planning Policy Guidance notes.
Proposals Map	A map accompanying the LDF showing areas of protection and identifying locations for land use and development proposals included in the adopted Development Plan Documents.
RSS (Regional Spatial Strategy)	A document, forming part of the development plan prepared by the regional planning body that provides the strategic framework within which local authorities prepare their Development Plan Documents.
SA (Sustainability Appraisal)	A systematic process required by the Planning and Compulsory Purchase Act 2004 and incorporating the requirements of the SEA Directive, aimed at appraising the social, environmental and economic effects of plan strategies and policies and ensuring that they accord with the objectives of sustainable development.
SCI (Statement of Community Involvement)	A document within the LDF setting out the County Council's proposals for involving the local community and other stakeholders in the preparation of LDDs and the determination of planning applications.
SEA (Strategic Environmental Assessment)	A process required by EU Directive 2001/42/EC (known as the SEA Directive) for the formal strategic assessment of certain plans and programmes which are likely to have significant effects on the environment.

1 Introduction

1.1 Background

The preparation of the Bath & North East Somerset (B&NES) Core Strategy has been subject to a fully integrated Sustainability Appraisal (SA) and Strategic Environmental Assessment (SEA) in line with the requirements of:

- in accordance with the requirements of the SEA Regulations (*Statutory Instrument 2004 No. 1633: The Environmental Assessment of Plans and Programmes Regulations 2004*) which requires a environmental assessment to be carried out on certain plans and programmes prepared by public authorities that are likely to have a significant effect upon the environment;
- The Planning and Compulsory Purchase Act 2004 and Planning Policy Statement 12 (PPS12) which requires sustainability appraisal (SA) of all emerging Development Plan Documents and Supplementary Planning Documents; and
- Applicable Government guidance including *A Practical Guide to the Strategic Environmental Assessment Directive* (Office of the Deputy Prime Minister, 2005) and Sustainability Appraisal section of the Plan Making Manual (<http://www.pas.gov.uk/pas/>).

The integrated process is therefore termed Sustainability Appraisal (SA) and it incorporates the requirements of the SEA Regulations. The SA is being carried out by B&NES Planning Services and ENVIRON, using a team of consultants experienced in SA and SEA of local authority spatial planning documents.

This report is the main output of the SA and records the results of the whole SA so far. This report has been produced alongside the production of the draft plan and is published at the same time. In this way, consultees were given the greatest amount of sustainability information on which to base their responses to the Core Strategy document.

1.2 Structure of This Report

This SA report includes the required elements of an environmental report as required by the SEA Regulations. Table 1.1 signposts the relevant sections of the SA report that represent the required contents of the environmental report.

SEA Regulations – requirement for an environmental report	Where covered in the SA Report
Preparation of an environmental report in which the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and geographical scope of the plan or programme, are identified, described and evaluated.	The whole report does this.
An outline of the contents, main objectives of the plan or programme, and relationship with other relevant plans and	The contents and main objectives of the plan are presented in Section

Table 1.1: Contents of the SA report	
SEA Regulations – requirement for an environmental report	Where covered in the SA Report
programmes.	2. The plan's relationships to other plans and programmes is addressed in Section 4 and Annex A.
The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme and the environmental characteristics of areas likely to be significantly affected.	Section 4 and Annex B
Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC.	Section 4 and Annex B
The environmental protection objectives, established at international, Community or national level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation.	Section 4 and Annex A
The likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors. (Footnote: These effects should include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects).	Section 6 and Annexes D and F (the definition of significance is addressed in Section 3.3).
The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme.	Section 6 and Annex F.
An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information.	Section 5. Difficulties are addressed in Section 3.6.
A description of measures envisaged concerning monitoring in accordance with Article 10.	Section 7
A non-technical summary of the information provided under the above headings.	See separate non-technical summary.
The report shall include the information that may reasonably be required taking into account current knowledge and methods of assessment, the contents and level of detail in the plan or programme, its stage in the decision-making process and the extent to which certain matters are more appropriately assessed at different levels in that process to avoid duplication of the assessment (Art. 5.2).	The whole report does this.
Consultation Authorities with environmental responsibility and the	The public and environmental

Table 1.1: Contents of the SA report

SEA Regulations – requirement for an environmental report	Where covered in the SA Report
public shall be given an early and effective opportunity within appropriate time frames to express their opinion on the draft plan or programme and the accompanying environmental report before the adoption of the plan or programme (Art. 6.1, 6.2).	authorities will be given 7 weeks to comment on the Publication Core Strategy and SA Report.

This chapter provides an introduction to the Core Strategy and related SA process. The rest of this report is structured as follows:

- Section 2 describes the content and main objectives of the Core Strategy;
- Section 3 outlines the methodology used in the SA;
- Section 4 describes the plan’s relationship with other plans, programmes and environmental / sustainability objectives and the sustainability baseline;
- Section 5 sets out the reasons for selecting the alternatives dealt with and the results of the appraisal of options considered in the development of the Core Strategy;
- Section 6 sets out the results of the appraisal of the policies within the Submission Core Strategy;
- Section 7 outlines initial proposals for monitoring the residual sustainability effects; and
- Section 8 describes the next steps.

1.3 Habitats Regulations Assessment

The Core Strategy has been subject to a parallel Habitats Regulations Assessment (HRA). HRA of plans is a requirement of the Habitats Regulations 2010 and relates to the protection of European designated nature conservation sites.

A screening exercise has identified that four European designated sites could be at some potential risk from indirect effects from the Core Strategy such habitat damage or disturbance. These 4 sites are as follows and were identified as requiring more detailed screening:

- Bath & Bradford-on-Avon Bats SAC
- Chew Valley SPA
- North Somerset and Mendip Bats SAC
- Mells Valley SAC

In a similar way elements of the Core Strategy were reviewed to gain an initial understanding of where and what the main issues of concern would be. This approach flagged up the following sections as needing detailed review in the HRA:

- Chapter 1: Vision & District-wide spatial strategy;

- Chapter 2: Shaping the future of Bath - a spatial strategy;
- Chapter 5: Rural Areas Spatial Strategy; and
- Chapter 6: Core policy framework.

The findings of the HRA can be found within the report entitled 'Habitat Regulation Assessment for the Bath & North East Somerset Core Strategy Publication Document October 2010' available here: www.bathnes.gov.uk/corestrategy

1.4 Consultation on this Report

The draft SA Report was published for consultation alongside the Publication Core Strategy from the period 16th December 2010 to 3rd February 2011. The purpose of this consultation was to provide the statutory environmental bodies and other interested parties the opportunity to express their opinion on the SA Report. It also enabled the reader to use the information within the SA Report to guide their deliberations on the Publication Core Strategy.

2 Bath & North East Somerset Core Strategy Development Plan Document

2.1 Spatial Planning in Bath and North East Somerset

Spatial planning in Bath and North East Somerset is currently guided by the saved policies within the Bath and North East Somerset, Bristol, North Somerset and South Gloucestershire Joint Replacement Structure Plan and the Bath and North East Somerset Local Plan. The process is also influenced by a variety of strategy and policy documents at the national, regional and local level which relate to specific issues such as employment land, open space or biodiversity.

Under the terms of Planning and Compulsory Purchase Act 2004, Local Planning Authorities (LPAs) are obliged to replace their adopted Local Plans with a Local Development Framework (LDF). A typical LDF consists of a number of Local Development Documents (LDDs) including:

- A Core Strategy which outlines the vision, objectives and policies for spatial land use planning in a LPA area;
- Area Action Plans which are a type of Development Plan Document (DPD) focused upon a specific location or an area subject to conservation or significant change (for example major regeneration);
- Site Allocations DPD which outlines the sites which have been selected to accommodate housing and other development; and
- Supplementary Planning Documents (SPD) may cover a range of issues, both topic and site specific, which may expand policy or provide further detail to policies in a Development Plan Document.

This report only covers the SA process for the preparation of the Bath & North East Somerset Core Strategy.

3 Sustainability Appraisal Methodology

3.1 Approach adopted for this Sustainability Appraisal

The methodology for this appraisal was developed in accordance with guidance published by the ODPM (now DCLG) as outlined in the Table 3.1 below. Stage A of the SA was undertaken by Council Officers within the Planning Policy Team with advice from ENVIRON UK Ltd consultants. ENVIRON consultants subsequently undertook the options appraisals and the appraisal of the Publication Core Strategy in collaboration with the Officers within the Planning Policy Team.

Table 3.1: Key Tasks for Sustainability Appraisals	
SA Stage	Purpose of the SA Stage
Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope	
A1: Identifying other relevant policies, plans and programmes and sustainability objectives	To document how the plan is affected by outside factors and suggest ideas for how any constraints can be addressed
A2: Collecting baseline information	To provide an evidence base for sustainability issues, effects prediction and monitoring
A3: Identifying sustainability issues and problems	To help focus the SA and streamline the subsequent stages, including baseline information analysis, setting of the SA Framework, prediction of effects and monitoring
A4: Developing the SA framework	To provide a means by which the sustainability of the plan can be appraised
A5: Producing scoping report and consulting on the scope of the SA	To consult with statutory bodies with social, environmental, or economic responsibilities to ensure the appraisal covers the key sustainability issues
Stage B: Developing and refining options and assessing effects	
B1: Testing the DPD objectives against the SA framework	To ensure that the overall objectives of the DPD are in accordance with sustainability principles and provide a suitable framework for developing options
B2: Developing the DPD options	To assist in the development and refinement of the options, by identifying potential sustainability effects of options
B3 and B4: Predicting and evaluating the effects of the DPD	To predict the significant effects of the DPD and assist in the refinement of the DPD
B5: Considering ways of mitigating adverse effects and maximising beneficial effects	To ensure that all potential mitigation measures and measures for maximising beneficial effects are considered and as a result residual effects are identified
B6: Proposing measures to monitor the significant effects of implementing the DPD	To detail the means by which the sustainability performance of the DPD can be assessed

Table 3.1: Key Tasks for Sustainability Appraisals	
SA Stage	Purpose of the SA Stage
Stage C: Preparing the Sustainability Appraisal Report	
C1: Preparing the SA Report	To provide a detailed account of the SA process (in a format suitable for public consultation and decision makers), including the findings of the appraisal and how it influenced the development of the DPD
Stage D: Consulting on the preferred options and SA Report	
D1: Public participation on the preferred options of the DPD and the SA Report	To provide the public and statutory bodies with an effective opportunity to express their opinion on the SA Report and to use it as a reference point when commenting on the DPD.

3.2 Stage A: Scoping

Stage A has been completed. An SA Scoping Report of the Core Strategy DPD was produced in June 2007 to help ensure that the SA process covered the key sustainability issues for spatial planning in Bath & North East Somerset.

ENVIRON supported Bath & North East Somerset officers in the development of the Scoping Report from an early stage and undertook an independent review and verification of the report in 2007 prior to its publication.

The Scoping Report presents the outputs of all of the tasks in Stage A (the scoping phase of the SA) and includes baseline information, review of relevant plans and identification of significant sustainability issues for the Core Strategy DPD. From all of the information collected, an “SA Framework”, or set of sustainability objectives, was developed, against which the various components of the Core Strategy have been appraised. A draft SA Framework was included in the Scoping Report and has been updated following consultation on the Scoping Report.

The data presented within the Scoping Report has been updated in response to the consultation responses received on the Scoping Report. Some of the information presented within the Scoping Report was updated in February 2010 because a considerable amount of time had passed since the Scoping Report was prepared in 2007. The updated data has informed the appraisal of the Core Strategy. The updated Scoping Report information can be found in Section 4 and Annexes A and B of this report.

3.3 Stage B: Assessing Options

The integration of sustainability into the plan starts formally at the stage of issues and options. The effects of the strategic options have been assessed in broad terms with the aim of assisting in the selection of the preferred options. This has been done in three stages:

- Mid 2008 informal comments were provided by ENVIRON on the emerging options (the assessment focused on the appropriateness of the vision and objectives for the plan as a whole and each sub area). These comments were presented and discussed at a meeting with Bath and North East Somerset Council planning policy team and used to inform the development of the consultation version of the Spatial Options Paper;
- Late 2008 further comments were provided by ENVIRON on the emerging options and were again presented and discussed at a meeting with Bath and North East Somerset Council planning policy team. These recommendations were used internally by Bath and North East Somerset Council to help formulate spatial options and core policies; and
- In August 2009 a Core Strategy Spatial Options document was assessed and the results presented in an Interim Sustainability Appraisal Report (ENVIRON September 2009) which accompanied the Core Strategy Spatial Options document during a consultation period which ran from 19th October to 11th December 2009 (with comments accepted until 15th January 2010).

The appraisal of the Publication Core Strategy DPD has been undertaken by independent consultants from ENVIRON. The appraisal was undertaken during August and October 2010 and the results of the appraisals are presented in Section 6 and Annex D. This appraisal was reviewed in the light of changes made to the Submission version of the Core Strategy in response to comments received during the consultation period. Any necessary changes were highlighted in the appraisal matrices (Annex D) and included within this report.

Assessment techniques

Matrices have been used to identify the sustainability effects of the options. These matrices are designed to help identify the potential impacts of the plan on each SA topic (guided by the SA Questions). The matrix for the assessment of the options is a relatively simple matrix. It allows for a discussion and comparison of each of the options under consideration. The simplicity of the matrix is designed to reflect the fact that strategic options should (and in many cases can only be) assessed in broad terms due a lack of spatial expression. A combination of expert judgement and analysis of baseline data has been used to judge the effects of the issues and options.

A 'no plan' scenario has not been developed as part of the options development. However, this has been taken into account as each issue, option and policy has been assessed against the current social, environmental and economic characteristics of the area and the likely future situation without a Core Strategy based on the trends in the baseline identified in the Scoping Report (future baseline).

Significance has been defined within the appraisal of the Core Strategy as follows:

Score	Description	Symbol
Major positive impact	The option / plan achieves all of the applicable SA questions and has a positive effect with relation to characteristics of the effect and the sensitivity of the receptors	++
Minor positive impact	The option / plan achieves some of the SA questions and has a positive effect with relation to characteristics of the effect and the sensitivity of the receptors	+
Neutral	The option / plan does not have an effect on the achievement of the SA Objective or SA questions	0
Minor negative impact	The option / plan conflicts with some of the SA questions and has a negative effect with relation to characteristics of the effect and the sensitivity of the receptors	-
Major negative impact	The option / plan conflicts with all of the applicable SA questions and has a negative effect with relation to characteristics of the effect and the sensitivity of the receptors. In addition the future baseline indicates a worsening trend in the absence of intervention	--
Uncertain	It is unclear whether there is the potential for a negative or positive effect on the SA Objective	?

On the basis of the criteria set out within Table 3.2, significant effects have been considered to be major positive, major negative effects, plus any minor negative or uncertain effects. Uncertain effects are considered to be significant because they could potentially result in major positive or major negative effects. Minor negative effects are considered to be significant because, although not a major effect, a minor negative effect might on its own be significant due to the degree to which it conflicts with the SA question and/or the sensitivity of receptors.

3.4 Stage C: Preparing the SA Report

This document is the SA Report. It outlines the significant effects on the environment, social and economic factors of the preferred options and the reasonable alternatives considered as part of the issues and options assessment. It outlines the reasons for selecting the preferred option and the measures envisaged to prevent, reduce and as fully as possible offset any significant effects of implementing the plan.

3.5 Stage D: Consulting on the SA Report

The SA Report was produced for consultation alongside the Publication Core Strategy. The consultation period for the DPD and the SA Report was 16th December 2010 to 3rd February 2011.

The current stage of the production of the Core Strategy is the Submission of the Core Strategy. The next stages of the production of the Core Strategy are:

- Autumn 2011: Examination in Public of the Core Strategy; and
- End of 2011: Adoption of Core Strategy

3.6 Difficulties encountered in compiling information or carrying out the appraisal

Baseline Data

Some data gaps have been identified within Annex B and Table 4.2 in Section 4. Where there are gaps in the baseline, this has made it difficult to predict the future evolution of the baseline characteristics without the Core Strategy.

There is no 'noise map' for the district and no other information is available relating to the noise baseline.

Comparing Spatial Strategy Options

Between the SA of the options presented within the Core Strategy Spatial options Consultation Document (B&NES, October 2009) and the drafting of the Publication Core Strategy, proposals were made at the national Government level to abolish Regional Spatial Strategies (RSS)¹.

Policies contained within the draft South West RSS set the level of growth that Bath and North East Somerset Council needed to plan for between 2006 and 2026 and also required new housing and economic development within the district to be focussed on the large urban areas (strategically significant cities) of Bath and Bristol with further development directed towards urban extensions. The Bath & North East Somerset Core Strategy Spatial Options Consultation (October 2009) presented two spatial strategy options for delivering this level of growth. These spatial strategy options included options for urban extensions to Bristol and Bath. These options were all appraised through the SA (see Section 5 and Annex C for further details). An option with no urban extensions was not appraised at this stage of the development of the plan as it was not a realistic alternative due to the level of housing required by the draft RSS.

Following the proposals to abolish the South West RSS, B&NES commissioned studies relating to predicted population increase and economic growth and urban capacity in order to determine, at the district level, the level of growth that the Core Strategy needs to plan for. The evidence provided by these studies indicates that a lower level of growth than that

¹ Announcement made by the Rt Hon Eric Pickles MP, Secretary of State for Communities and Local Government on 6 July 2010 (<http://www.communities.gov.uk/statements/newsroom/regionalstrategies>)

proposed by the draft RSS is predicted and needs to be planned for by the Core Strategy. The findings of the urban capacity work indicate that the majority of new housing and economic development can be accommodated within Bath and the other key settlements within the district and urban extensions are not required. Therefore at this stage the option of accommodating development without the need for urban extensions has been able to be appraised. It is on this basis that the Publication Core Strategy Spatial Strategy and the subsequent Submission Core Strategy Spatial Strategy has been prepared. The Publication and the Submission Core Strategy Spatial Strategy provides for 11,000 new homes and 8,700 to 10,000 jobs over the plan period.

The options presented within the Spatial Options consultation document (October 2009) did not include an option with no urban extensions as explained above. In order to ensure that the sustainability implications of the District Spatial Strategy (DW1) which does not include urban extensions are fully understood, an additional assessment has been undertaken to examine the implication of moving away from the options of urban extensions considered in the Core Strategy Spatial options consultation document (October 2009). This exercise is presented, along with background information, in Annex E.

It has been difficult to compare the potential positive and negative effects of the options considered in the Spatial Options consultation document with the spatial strategy presented within the Submission Core Strategy. Table E.1 in Annex E presents a comparison between the positive and negative effects of a strategy without urban extensions with the positive and negative effects of the urban extension options. The table includes conclusions relating to the overall effects of the Submission Core Strategy District Spatial Strategy and identifies where the Submission Core Strategy mitigates for any potential negative effects of the District Spatial Strategy.

4 Relationship with other Plans and Programmes and Baseline

What the SEA Regulations say...

Information for Environmental Reports...

1. An outline of the plan's relationship with other relevant plans and programmes; and
5. The environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation. (N.B. ODPM guidance (2005) extends this to include other sustainability objectives).

4.1 The plan's relationship with other plans and programmes (policy context)

As identified in Section 3.1 the purpose of this stage is to document how the plan is affected by outside factors and suggest ideas for addressing any constraints.

In order to fulfil the requirements of the SEA Regulations (above), a review has been undertaken of other relevant plans, policies, programmes (PPPs) and objectives.

Reviews of relevant plans and programmes were presented in the Scoping Report. The review has been updated in February 2010 in order to take account of publications since the last update of the review undertaken in June 2007 and this is presented in Annex A.

Many of the plans, policies and programmes that have been reviewed pick up on some aspect of the "sustainable development" agenda but this may not be their primary purpose. Some of the key "sustainable development" messages coming out of the review of plans, policies and programmes are presented in Table 4.1.

Table 4.1: Sustainable Development Messages Identified in the Review of Plans, Policies and Programmes

Topic	Sustainable Development Messages
Air quality and noise	<ul style="list-style-type: none"> • Improve air quality and reduce air, noise and light pollution;
Biodiversity	<ul style="list-style-type: none"> • Protect and enhance biodiversity;
Climate change and flood risk	<ul style="list-style-type: none"> • Flood risk is increasing with climate change and there is a need to adapt to all predicted consequences of climate change;
Community, health and well-being	<ul style="list-style-type: none"> • Improve peoples' health and reduce health inequalities; • Protect and provide access to appropriate levels of open space; • Create mixed, safe communities and promote social inclusion;

Economy and employment	<ul style="list-style-type: none"> • Promote high quality and sustainable tourism; • Ensure a resilient and economically sustainable food system;
Energy and carbon emissions	<ul style="list-style-type: none"> • Support low carbon economies and achieve successful and competitive businesses both urban and rural; • Promote energy efficiency; • Promote and provide for renewable energy;
Historic environment	<ul style="list-style-type: none"> • Protect and enhance the historic environment; • Promote good design and sustainable construction;
Housing	<ul style="list-style-type: none"> • Meet strategic housing requirements for the district; • Provide affordable housing to meet identified needs; • Promote good design and sustainable construction; • Incorporate the principles of sustainable development;
Natural resources	<ul style="list-style-type: none"> • Make the best use of previously developed land; • Promote higher densities of development in accessible locations; • Protect soil resources including high quality agricultural land; • Promote water efficiency;
Landscape	<ul style="list-style-type: none"> • Protect and provide access to appropriate levels of open space;
Transport	<ul style="list-style-type: none"> • Reduce the need to travel and promote sustainable transport options; and
Waste	<ul style="list-style-type: none"> • Ensure natural resources are used efficiently and waste is minimised, reused or recycled.

4.2 How sustainability objectives have been taken into account

In 2007, when the scoping stage of the SA was undertaken, a framework of SA Objectives was developed by B&NES to be used as a framework for appraising the DPDs of the B&NES LDF, including the Core Strategy. This framework of SA Objectives was consulted on in order to ensure that it addresses the key sustainability issues within B&NES.

ENVIRON undertook a review of the SA Framework in 2008 prior to appraisal of options. The review identified a number of areas for improvement and as a result the following changes were made to the SA Framework:

- Appraisal questions were inserted in order to guide the appraisals;

- The framework was linked to the RSS whilst at the same time ensuring that it also reflects the local issues identified within the objectives and within the scoping report; and
- The framework was streamlined where there was repetition between objectives. Amendments were made to amalgamate some objectives which resulted in an overall reduction of the number of objectives from 23 to 20.

As the changes made to the SA Framework in 2008 did not constitute a change in scope, the revised framework was not consulted on specifically following the review. Consultees were given the opportunity to comment on the revised SA Framework in 2009 when the Interim Sustainability Appraisal Report (ENVIRON September 2009) was consulted on.

Following the update of the PPPs in February 2010, two new appraisal questions were added to the SA Framework to reflect the objectives within documents published since 2007 and these are shown in *italics* in Table 4.2.

Table 4.2: SA Framework (revised in July 2010)	
Appraisal questions added in July 2010 are shown in <i>italics</i>	
SA Objectives	Detailed questions: <i>Does the policy/option ...</i>
Objective 1: Improve accessibility to community facilities and local services	Help everyone access basic services easily, safely and affordably Increase access to and participation in community and cultural facilities and activities
Objective 2: Improve the health and well-being of all communities	Improve Health Reduce Health inequalities Promote healthy lifestyles, especially routine daily exercise
Objective 3: Meet identified needs for sufficient, high quality and affordable housing	Help make suitable housing available and affordable for everyone
Objective 4: Promote stronger more vibrant and cohesive communities	Promote stronger more cohesive communities
Objective 5: Reduce anti-social behaviour, crime and the fear of crime	Reduce crime and fear of crime
Objective 6: Improve the availability and provision of training	Give everyone access to learning, training, skills and knowledge
Objective 7: Ensure communities have access to a wide range of employment opportunities, paid or unpaid	Give everyone in the region access to satisfying work opportunities, paid or unpaid Reduce poverty and income inequality Provide a diverse range of employment opportunities in a

Table 4.2: SA Framework (revised in July 2010)	
Appraisal questions added in July 2010 are shown in <i>italics</i>	
SA Objectives	Detailed questions: Does the policy/option ...
	variety of sectors
Objective 8: Enable local businesses to prosper	Increase the circulation of wealth within the local authority area Reduce vulnerability of the economy to climate change and harness opportunities arising
Objective 9: Increase availability of local produce and materials	Meet local needs locally <i>Support local food producers</i>
Objective 10: Ensure everyone has access to high quality and affordable public transport and promote cycling and walking	Make public transport, cycling and walking easier and more attractive
Objective 11: Reduce the need and desire to travel by car	Reduce the need/desire to travel by car
Objective 12: Protect and enhance local distinctiveness	Protect and enhance landscape and townscape Value and protect diversity and local distinctiveness including rural ways of life
Objective 13: Protect and enhance the district's historic, environmental and cultural assets	Maintain and enhance cultural and historical assets
Objective 14: Encourage and protect habitats and biodiversity (taking account of climate change)	Protect and enhance habitats and species (taking account of climate change)
Objective 15: Reduce land, water, air, light, noise pollution	Minimise land, water, air, light, noise pollution
Objective 16: Encourage sustainable construction	Development that demonstrates sustainable design and construction Minimise consumption and extraction of minerals
Objective 17: Ensure the development of sustainable and/or local energy sources and energy infrastructure	Reduce non-renewable energy consumption and 'greenhouse' emissions Promote sustainable energy generation and distribution
Objective 18: Reduce vulnerability to, and manage flood risk (taking account of climate change)	Reduce vulnerability to, and manage flood risk (taking account of climate change) <i>Enable us to cope with hotter, drier summers (shade, ventilation, ground conditions etc)</i>
Objective 19: Encourage careful and efficient use of natural resources	Promote the conservation and wise use of land

Table 4.2: SA Framework (revised in July 2010)	
Appraisal questions added in July 2010 are shown in <i>italics</i>	
SA Objectives	Detailed questions: <i>Does the policy/option ...</i>
	Keep water consumption within local carrying capacity limits (taking account of climate change) Minimise consumption and extraction of minerals
Objective 20: Promote waste management accordance with the waste hierarchy (Reduce, Reuse and Recycle)	Reduce waste not put to any use

This updated version of the SA Framework has been used to appraise the sustainability of the Publication and Submission Core Strategy. The previous version of the SA Framework (without the two detailed appraisal questions shown in *italics* in Table 4.2) was used to appraise all previous options considered in the development of the Core Strategy.

4.3 The Sustainability Baseline

What the SEA Regulations say...

Information for Environmental Reports...

- 2. The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme.*
- 3. The environmental characteristics of those areas likely to be significantly affected*
- 4. Any existing problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance such as areas designated pursuant to Council Directive 79/409/EEC on the conservation of wild birds and Habitats Directive.*

The comprehensive baseline information which describes the B&NES area is presented in the Scoping Report which can be obtained from B&NES Council or from the following link: www.bathnes.gov.uk/corestrategy.

Key baseline data has been updated in between February 2010 and August 2010, as it has become available and Table 4.2 presents key updated baseline data. In addition, trend information reported in the Scoping Report has been used to identify the “future baseline”, the potential evolution of the baseline in the absence of the plan.

Table 4.3: Summary of the Sustainability Baseline Data	
Sustainability baseline / issues / characteristics of the area	Suggested evolution without the plan
Air quality	
<p>Nitrogen dioxide concentrations in Bath are increasing. An AQMA for nitrogen dioxide (NO²) exists along the A4 London Road (Bath), including Bathwick Street. It is likely that the whole of the city of Bath will be declared an AQMA.</p> <p>An AQMA has been declared in the centre of Keynsham.</p> <p>There are no AQMAs in Midsomer Norton, Radstock or elsewhere in the district.</p>	<p>Over the next 5-10 years there is the potential for air quality to either remain the same or decline in within Bath and air quality could decline in Keynsham without improvements to traffic levels on the High Street. The Bath Package is a major transport programme designed to provide an improved public transport system, relieve traffic congestion and improve emissions. It includes the provision of a bus rapid transit scheme, increased park and ride parking spaces and creating a more cyclist and pedestrian friendly city. There is some uncertainty regarding the funding of the Bath Package, however, following the general election in May 2010 and therefore the future traffic situation, transport infrastructure and air quality in Bath is uncertain.</p>
Noise	
<p>There is a gap in the baseline data regarding noise levels within the District.</p>	<p>Noise problems related to traffic may increase. There is uncertainty over what will happen to neighbourhood noise in the future.</p>
Biodiversity	
<p>The following sites are designated for nature conservation:</p> <ul style="list-style-type: none"> • SPA: Chew Valley Lake • SAC: Combe Down and Bathampton Mines, part of the 'Bath & Bradford-on-Avon Bats SAC'. • SAC: Compton Martin Ochre Mine is a component site of the North Somerset and Mendip Bats SAC. • There are 59 SSSIs in B&NES and 300 locally designated sites. 71% of SSSI units are in favourable condition. 	<p>The district's biodiversity is at threat from development; human activities such as pollution, roads, disturbance, farming practices; loss of habitat; loss of food sources and a changing climate.</p> <p>Climate change is likely to disadvantage some species through altering seasons, changing habitats, causing habitat fragmentation (e.g. through drought) and introducing new species which could compete with others for space or could prey on them. However, climate change may also benefit some species for the same reasons.</p>

Table 4.3: Summary of the Sustainability Baseline Data	
Sustainability baseline / issues / characteristics of the area	Suggested evolution without the plan
<ul style="list-style-type: none"> • There are 300 locally designated sites. <p>A BAP priority habitat is mapped in the Scoping Report.</p>	
Climate change and flood risk	
<p>The areas prone to flooding tend to follow the main rivers.</p> <p>The areas most at risk of flooding are:</p> <ul style="list-style-type: none"> • Bath - at risk of flooding from rivers, sewers, surface water, artificial sources and to a lesser degree from groundwater (springs). Level 2 SFRA has shown that large proportions of the central area and areas closest to the River Avon are in Flood Zone 3a and 3b (the highest risk). • Keynsham -at risk of flooding from rivers (which may be tidally influenced), surface water, sewers and artificial sources. A level 2 SFRA has shown that a small area to the north of the Somerdale site is in Flood Zone 2. A small area to the South East of the town centre may also be Flood Zone 3a. • Midsomer Norton -at risk of flooding from rivers, surface water and sewers. A level 2 SFRA has shown that the town centre is in Flood Zone 1. Small areas are at higher risk of flooding. Midsomer Norton benefits from a flood alleviation scheme during a 1% AEP river flood event. • Radstock - at risk of flooding from rivers, surface water and sewers. A 	<p>Global temperatures are predicted to rise between 1.4 – 5.5°C over the 21st Century. Climate change is likely to increase the areas at risk of flooding in the long term.</p> <p>Other effects of climate change are reported to be²:</p> <ul style="list-style-type: none"> • The region is becoming warmer and by the 2050s average temperatures may be as much as 3.5°C warmer in summer; • High summer temperatures are becoming more frequent, and very cold winters are becoming increasingly rare; • Winters are becoming wetter (a 5 - 20% increase is expected by the 2050s), whilst summers are becoming drier (10 - 40% decrease by the 2050s); • Relative sea level continues to rise, and could be as much as 80cm higher by the 2080s; • Changes to insurance costs and coverage are expected, in particular in vulnerable geographic areas or economic sectors; and • Loss of habitats and indigenous species could occur as well as longer

² Warming to the idea - South West Region Climate Change Impacts Scoping Study (South West Climate Change Impacts Partnership, January 2003)

Table 4.3: Summary of the Sustainability Baseline Data	
Sustainability baseline / issues / characteristics of the area	Suggested evolution without the plan
<p>level 2 SFRA has shown that some of the central parts of the town centre are in Flood Zone 2 and 3a.</p> <ul style="list-style-type: none"> Chew Magna and downstream communities -at risk of flooding from rivers, surface water and artificial sources. 	<p>growing seasons and increased potential for novel agricultural crops.</p> <p>In the absence of the Core Strategy, development will not necessarily be accompanied by sustainable drainage measures and pollution may increase.</p>
Community and well being	
<p>In rural areas the level of service deprivation is naturally high due to geographical distance to the services. Wards with particular barriers to accessing local services include Chew Valley South, Clutton and Mendip.</p> <p>There is increasing diversity within local communities and identified pockets of deprivation amongst growing levels of affluence across the district.</p> <p>There are 115 LSOAs in the B&NES Unitary Authority area. According to the Indices of Multiple Deprivation (IMD) 2007, 4 of these 115 areas are among the most deprived 20% nationally. They are home to about 5,600 people. 4 different wards (out of the 37 in B&NES) contain one such area, all are in Bath.</p> <p>No areas in B&NES are within the most deprived 10% nationally. The most deprived Lower Super Output Area (LSOA) is part of Twerton ward, Bath, which is among the most deprived 14% of English LSOAs.</p> <p>Bath City Centre, the South West area of Bath City and North Keynsham experience the highest levels of recorded priority crime in B&NES.</p> <p>Life expectancy in the district is higher than the regional and national averages. However, people living in electoral wards with the lowest index of deprivation have a lower life expectancy by 4.6 years than those living in</p>	<p>If not addressed, crime, deprivation and access to services are likely to remain problems.</p> <p>The patterns of deprivation are likely to follow existing trends and will respond to external pressures.</p> <p>In 2008 the Office for National Statistics estimated that the population of B&NES in 2006 was 173,100 and that between 2006 and 2026 the population of the district will increase by 9.5%.</p> <p>Nationally, predicted future trends in population dynamics are: rising household numbers, reflecting increasingly rapid decline in household size, due to ever increasing life expectancy, more households separating and higher inward migration both from other areas of the UK and internationally.</p> <p>The number of over 80 year olds in the district has been projected to increase by 16% by 2026. The impact of an aging population will impact on healthcare provision in the future.</p> <p>Obesity is an increasing issue facing the whole of the country.</p>

Table 4.3: Summary of the Sustainability Baseline Data	
Sustainability baseline / issues / characteristics of the area	Suggested evolution without the plan
<p>the most affluent wards.</p> <p>The Sport England survey 2006 showed that 23.8% of residents regularly participated in moderate intensity sport and active recreation. This was the top 25% of local authorities.</p>	
Economy and employment	
<p>There is an uneven spatial distribution of skills levels in Bath and North East Somerset with particular skills issues in Midsomer Norton and Radstock.</p> <p>The percentage of the economically active population of BANES which are unemployed is lower than the UK and regional percentages.</p> <p>Wage rates are lower than the UK average and there are many low skill/wage jobs.</p> <p>There are some wards in Radstock which experience comparatively high levels of unemployment linked to patterns of deprivation mapped in the indices of deprivation.</p> <p>The English Indices of Deprivation (2004) ranks B&NES as the 259th (73.76%) least deprived local authority out of 354 Local Authorities. Within Bath, there are pockets of deprivation, most severely in the Twerton West and Whiteway areas.</p> <p>Kingsmead and Whiteway are within the 10% most deprived areas for Crime and Disorder and Kingsmead is also within the 10% most deprived for Health and Disability, Income and Living Environment Deprivation.</p> <p>The rural areas generally feature in the least deprived areas in England. However, Bathavon North, Englishcombe, Corston, Hinton Blewet and</p>	<p>Without intervention the pattern of skills levels and wages within the district is likely to remain the same.</p> <p>The patterns of deprivation are likely to follow existing trends and will respond to external pressures.</p> <p>Unemployment in some wards in Radstock, again, may remain the same, without intervention to improve skills levels and the diversity of employers in the area.</p> <p>Local food producers may continue to experience barriers to expansion.</p> <p>The district, especially Bath, may experience a lack of office space.</p>

Table 4.3: Summary of the Sustainability Baseline Data	
Sustainability baseline / issues / characteristics of the area	Suggested evolution without the plan
<p>Chew Valley are within 10% of most deprived areas with barriers to obtaining suitable housing and in accessing key local services. Whitchurch is within the 10% most deprived areas for Crime and Disorder.</p> <p>The super output areas of Midsomer Norton and Radstock vary in their ranking in the Index of Multiple Deprivation. The four wards of Writhlington, Westfield North and Midsomer Norton West were in the 50% most deprived areas, with Clandown in the 40% most deprived according to the 2004 IMD.</p> <p>There is a specific need to diversify the employment base in the Midsomer Norton and Radstock area as 30% of local jobs are accounted for in manufacturing, a declining sector.</p> <p>The Bath and North East Somerset area, especially Bath, currently faces a projected deficit in the provision of office space.</p> <p>There are a number of Local Food Suppliers in the District and the North East Somerset & Bath Local Food Partnership was set up in 2007 to encourage the production, sale, purchase and consumption of quality foods produced in the local area. The Partnership commissioned a survey in to local food production in the B&NES area. Key findings included a need for the planning system to support barriers to expansion of local food producers.</p>	
Historic environment	
<p>Bath was designated a World Heritage site in 1987.</p> <p>There are 37 Conservation Areas, 11 Historic Parks and Gardens, 84 SAMs and approximately 6,400 listed buildings and structures in B&NES (of which 5,000 lie within the City of Bath). There are currently 17 Conservation Areas, 9 Scheduled Monuments, 4 buildings and 1</p>	<p>If no development takes place (in the absence of the plan) the value of the designated sites and areas should remain the same. However, climate change may put historic assets at risk due to extreme weather events, flooding, hotter, drier summers and wetter winters.</p>

Table 4.3: Summary of the Sustainability Baseline Data	
Sustainability baseline / issues / characteristics of the area	Suggested evolution without the plan
<p>Designated Park and Garden on the Heritage at Risk Register 2010.</p> <p>The area which was formerly part of the Somerset coalfield retains a rich industrial heritage.</p>	
Housing	
<p>High house prices and a lack of affordable housing make it difficult to attract people to the area and to retain key workers.</p> <p>Lower quartile house price in Bath and North East Somerset are more than 9 times the lower quartile resident annual earnings. Nearly half the overall need for affordable housing in B&NES is concentrated in Bath City.</p> <p>Of the households in need, newly forming households unable to afford to buy are the dominant group in Bath & North East Somerset. Achieving an appropriate mix of decent, affordable homes will need to be a priority in any new development proposals.</p> <p>Specific attention needs to be devoted to ensuring energy efficiency, water consumption, and the use of sustainable building materials.</p>	<p>It is unknown how many housing developments will come forward within the next 5 years due to the economic downturn of recent years. It may remain difficult to secure a mix of decent affordable homes.</p> <p>Without the pro-active planning represented by the plan, it is unlikely that B&NES will be able to provide enough affordable housing to satisfy future requirements.</p> <p>With the improvements in the Building Regulations the sustainability of new houses is likely to improve.</p> <p>Historically there has been a statistically low level of demand for gypsy and traveller sites with some unauthorised occupation of land by gypsy and travellers within the district. However, there is a national shortage of these types of sites and the West of England Gypsy and Traveller Accommodation Assessment (2007) recommends that 19 permanent pitches and 20 transit pitches are found for the gypsy and travelling communities in B&NES in the period 2006-2011. The report also indicates that one plot for travelling showpeople should be provided in B&NES by 2011.</p>
Land	
<p>B&NES has prepared a Remediation Statement (2002) relating to contaminated land located in Keynsham. This land has been remediated, including the removal of all material, contaminated and uncontaminated, from the site and, therefore, permanently removing the pollutant linkage.</p>	<p>As developments occur on contaminated land they will be remediated. Therefore, the amount of contaminated land will decrease over the next 5-10 years.</p>

Table 4.3: Summary of the Sustainability Baseline Data	
Sustainability baseline / issues / characteristics of the area	Suggested evolution without the plan
<p>No further land is registered as contaminated under Part 2A of the Environmental Protection Act 1990.</p> <p>82% of new or converted dwellings in the District completed during 2008/09 were built on previously developed land.</p>	<p>The amount of development that is built on brownfield land should remain high in the district.</p>
Landscape	
<p>There are 2 AONBs in the District – Mendip and Cotswolds AONBs.</p> <p>The district has a varied landscape represented by 18 LCAs. Large areas of B&NES are Green Belt (61%).</p> <p>Bath has a distinctive townscape in the way that buildings respond to the distinct topography. Many buildings and terraces follow contours, often overlooking open ground and panoramic views.</p> <p>The character of Keynsham, Norton-Radstock and the villages are enriched and partly defined by the landscapes which surround and in some cases penetrate the built up areas.</p> <p>Large areas of Radstock are covered by a Conservation Area.</p>	<p>Landscape character may be threatened by lack of appropriate management, inappropriate development and climate change.</p> <p>Without the Core Strategy, areas deemed to be of poor townscape character will not be pro-actively improved, leading to a degradation in townscape quality.</p>
Transport	
<p>Over 50% of residents travel out of the area to work. The average journey to work is 13.23km (comparatively high). 2001 data showed a high proportion of the population travelling to work by car.</p> <p>There is no direct link to the motorway network in B&NES and Bath suffers particularly from the sub-region's poor internal transport links. Major link roads, A4, A36 and A46 pass through the centre of Bath, therefore Bath has a very high level of through traffic. This includes large numbers of</p>	<p>The Bath Package is a major transport programme designed to provide a modern integrated easy to use public transport system. This includes the provision of a bus rapid transit scheme and creating a more cyclist and pedestrian friendly city. There is some uncertainty regarding the funding of the Bath Package following the general election in May 2010 and therefore the future traffic situation and transport infrastructure in Bath is uncertain.</p> <p>The high proportion of the district's population recorded in 2001 who travel to work by car will continue unless alternative and more attractive modes of</p>

Table 4.3: Summary of the Sustainability Baseline Data	
Sustainability baseline / issues / characteristics of the area	Suggested evolution without the plan
<p>HGVs en route to or from the Channel ports.</p> <p>Bath has low level of cycling due mainly to heavy traffic volumes, the lack of cycle networks and steep hills, but a relatively higher proportion of movements by foot despite gradients and busy roads.</p> <p>The high level of self-containment in Bath and easy access to a mainline railway station does not prevent heavy traffic congestion during the day, perceived to have a negative impact on businesses in the City.</p> <p>High levels of out-commuting from Midsomer Norton and Radstock means that the link road south from Bath to Keynsham, Midsomer Norton and Radstock copes with high levels of commuter traffic.</p> <p>Norton Radstock is connected to Bath by the A367, a popular tourist route to the West Country, and to Bristol via the A362 and A37, the latter also extending south to the A303.</p> <p>Problems with congestion are experienced in Bath, Keynsham and Radstock.</p> <p>Any proposals for the further development of the area will need to address this by bringing relief from current congestion, and promoting more sustainable forms of transport.</p>	<p>transport are provided.</p> <p>Increased traffic would exacerbate all of the existing problems outlined in the baseline data. Nonetheless, if the interventions set out in the Bath Package are successfully implemented, this situation can be controlled in Bath.</p>
Waste	
<p>B&NES is one of the top recycling authorities within the country, recycling 41% of household waste in 2009/10.</p> <p>Waste infrastructure: 2 x waster transfer stations (Bath and Radstock), 9 x Recycling Collection Points, 3 x Recycling Centres (bulkier items), 1 x railhead, and 2 x refuse collection and cleansing depots.</p>	<p>Levels of recycling have been increasing and there is no reason to believe that this trend will change.</p> <p>However, household waste generation may also rise, as a result of new development and population growth and therefore total amounts of residual waste may also increase.</p>

Table 4.3: Summary of the Sustainability Baseline Data	
Sustainability baseline / issues / characteristics of the area	Suggested evolution without the plan
Every day B&NES sends 15 containers by road to Shortwood Landfill Site in South Gloucestershire and Dimmer Landfill Site in Somerset.	
Energy and carbon emissions	
<p>CO₂ emissions from B&NES = 1182 kt annually. Emissions from Domestic sources is 2.7 tonnes per capita (UK average = 2.6 tonnes)</p> <p>There is no record of any major renewable energy schemes within the district. There are a few small scale schemes undertaken on an individual basis but no comprehensive survey of existing installations has been undertaken and this may be a gap in baseline information.</p> <p>A renewable energy research study has been undertaken.</p> <p>Initiatives to improve energy efficiency and utilise renewable energy need to be addressed in relation to the historic buildings.</p>	<p>With the expected improvements in the Building Regulations, the energy efficiency of new dwellings is likely to improve over the next 5 years.</p> <p>Historic buildings may be difficult to make more energy efficient in light of existing planning controls.</p> <p>On-site renewable energy technologies are developing in response to Part L of the Building Regulations and targets set in other areas of the UK. The percentage of energy generated from renewable sources is likely to increase in the future.</p>
Water	
<p>The river chemical and biological quality is generally Very Good to Fairly Good</p> <p>Nitrate is regularly found in groundwater in some areas.</p> <p>The far east and far west of the district is covered by Ground Source Protection Zones (including a part of Bath).</p>	<p>With the expected improvements in the Building Regulations, the water efficiency of new dwellings is likely to improve over the next 5 years.</p>

5 Reasons for Choosing Options and Alternatives and Results of the Appraisals of Options

What the SEA Regulations say...

Information for Environmental Reports...

6. The likely significant effects on the environment, including short, medium and long term effects, permanent and temporary effects, positive and negative effects, and secondary, cumulative and synergistic effects on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage (including architectural and archaeological heritage) and landscape (and the inter-relationship between the issues above).

7. The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme.

8. An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know how) encountered in compiling the required information.

5.1 Introduction

The SEA Regulations require that the Environmental Report outlines the reasons for selecting the alternatives dealt with. ODPM guidance states that to adhere to this requirement the Environmental Report should outline:

- The main strategic options considered, how they were identified and the reasons for selecting the options (see Section 3.3 of this report for details of the options considered);
- A comparison of the social, environmental and economic effects of the options and how social, environmental and economic issues were considered in choosing the preferred options; and
- Other options considered, and why these were rejected.

An assessment of the sustainability effects of spatial options was undertaken in August-October 2009 using the SA Framework and the development of the Publication Core Strategy was influenced by the results of the SA of options.

A summary of the results of the assessment of options is presented in Section 5.3.

5.2 Assumptions made during the assessment

SA relies on expert judgement, which is guided by knowledge of the likely impacts of the plan, the baseline data available and responses and information provided by consultees and other stakeholders. The assessment has been carried out and reported using an expert, judgement-led qualitative assessment. A 'precautionary approach' is taken, especially with qualitative judgements and mitigation is suggested if there is any doubt as to the effect of the plan.

The nature of the Core Strategy is that it is an overarching strategic document which presents the core spatial planning policies for the LDF and provides the policy 'hooks' on which to 'hang' subsequent LDF policies and documents.

In light of this, the appraisal has:

- Indicated where assessment is not possible or where additional data is required; and
- Indicated the mitigation needed in two ways:
 - Direct mitigation: indicate where changes to the Core Strategy DPD is needed to include specific measures to deal with a potential negative impact or a lack of information;
 - Indirect mitigation: indicate matters that need to be developed as the LDF is further developed or where information needs to be provided within another LDF document.

5.3 The reasons for selecting alternatives

The process of preparing the LDF Core Strategy is itself one that involves consideration of issues and options. Consideration of alternatives as required by the SEA Regulations is therefore an integral part of the process. The Spatial Options document outlined alternatives that were considered at this stage and these are discussed in section 5.4 below. The reasons for selecting these options are not repeated here.

The Publication Core Strategy and the subsequent Submission Core Strategy set out a spatial strategy that differed in some respects from the options set out in the Spatial Options document. The conclusions of the SA of the Spatial Options document informed the preparation of the Publication Core Strategy. The key reasons for developing and selecting this strategy are briefly summarised below.

Complying with Regional Planning Context

The options set out at the Spatial Options stage were developed in order to generally conform with the draft Regional Spatial Strategy (RSS) for the South West. Since that time the Government has announced its intention to abolish RSSs through the Localism Bill and expects Local Authorities to have regard to this as a material consideration. The draft RSS for the South West was never adopted and its pending abolition has enabled the Council to move away from the central growth targets and instead establish a clear spatial plan for the district based on up-to-date evidence and responding to local circumstances. Formulation of this overarching policy framework for the District has entailed analysis of new, up-to-date evidence, formulation of options to meet the objectives, engaging with local communities, testing these through the sustainability appraisal and assessing deliverability. Account has been taken of the District's functional relationship with neighbouring authorities. The process of developing a spatial strategy for B&NES has entailed assessing the broad factors set out below.

Development need

The Council has undertaken assessments of development need within the District during the plan-period. This includes assessing the space needed for economic growth, housing, retail provision and social needs. This takes account of the Council's objective of promotion of a higher value economy rather than only volume growth. In terms of housing need, the Council has assessed the post recession likely need for new housing, both market and affordable housing, over the plan period up to 2026 based on:

- Projected population change arising from births over deaths and increasing life expectancy;
- The likely housing requirement this entails, including rapid decline in household size and increased separation rates;
- The need for housing generated by economic growth (net migration), taking into account likely future growth rates, productivity changes and sectoral changes; and
- Provision for non-economically active migrants.

Development land supply

A detailed, 'bottom up' assessment has been undertaken of the capacity of the District's settlements for delivery of new housing, jobs and community facilities. This has included identifying suitable and deliverable development sites, understanding the environmental constraints including potential flood risk, assessing the appropriate mix of uses and densities and ensuring the necessary infrastructure is in place or can be secured to deliver mixed and balanced communities. The assessment has also looked at the opportunities to re-use empty homes and under-used properties. Part of this analysis is set out in the Strategic Housing Land Availability Assessment (SHLAA).

Infrastructure

An underlying principle in the preparation of the Core Strategy has been the need for new development to be well aligned with the necessary infrastructure, including transport, community facilities and green infrastructure. The Infrastructure Delivery Programme provides an assessment of the infrastructure needed to underpin the spatial strategy and its delivery, focussing particularly on the first three to five years of the plan period.

Environmental capacity

The district is renowned for its outstanding environment. Bath is the only complete city in the UK which is inscribed as a World Heritage Site; the high quality of the landscape is recognised by the designation of two Areas of Outstanding Natural Beauty; there are over 50 Conservation Areas in the district and Bath has the highest concentration of Listed Buildings outside of Westminster. The District also enjoys a

rich and diverse biodiversity resource, including many protected species and habitats and two sites of European importance for bats and wetland birds. The Council has assessed the impact of various policy proposals and alternative options on the Environment through the sustainability appraisal, the Habitats Regulation Assessment (HRA) and locational investigations.

The local communities

National policy requires that the results of public engagement exercises should be treated as evidence in the development of the Core Strategy. The preparation of the Core Strategy has therefore taken into account the issues raised through consultation on the Spatial Options document and has entailed close working with local groups and communities in order to understand local priorities. This has included various economic, environment and community groups in Bath, the Somer Valley partnership, the Keynsham Development Advisory Group as well as parish and town councils.

5.4 Options Appraisals in 2008

The Core Strategy Issues and Options Paper (October 2008) was appraised by the SA consultants. Comments and recommendations were fed back to B&NES officers as the paper was developed. The key issues identified within the appraisals are identified below:

- The District-wide Spatial Vision was very generic would benefit from the integration of the strategic priorities. It should be made clear why these are of importance to the district and the district wide policy areas should link to the Spatial Objectives. Currently there are a number of policy areas listed e.g. energy and climate change, which do not clearly link to the spatial objectives. The promotion of sustainable energy generation and associated infrastructure has not been addressed;
- The place-based visions and objectives tended not to deal with pollution, natural environment, resources and sustainable construction;
- The urban extensions visions and objectives did not actively encourage non-renewable energy sources, although part of the vision for both options stated that “buildings will be zero carbon”;
- In general, options presented for the district and specific areas did not address waste management, climate change, energy, biodiversity and use of natural resources;
- Issues including crime and fear of crime, pollution, flood risk, townscape, protection and enhancement of habitats taking account of climate change, economic issues other than retail and promotion of healthy lifestyles were not adequately covered within the core policy issues identified;
- Of the four District-wide spatial options presented, Options 1 and 2 stood out as performing particularly well for reducing the reliance on car travel due to the sustainable location of new development on public transport links. Options 3 and 4 appeared to perform best in maintaining cultural and historical assets as they reduce

the pressure to develop the Bath which hold great historic value. These options also performed well in supporting rural economies and retaining local distinctiveness;

- There was no clear cut answer to which option for an urban extension to Bath performed best overall; all of the options were associated with their own merits and disadvantages;
- None of the options for Keynsham mentioned the provision of training or improvements in skills although the committed regeneration in each option may lead to improved education facilities in schools. Option A may have presented the best option for a more cohesive community as it is the only option which did not include an urban extension and therefore risk merging with neighbouring communities. Option A appears to be the best option in terms of reducing the dependence on cars;
- All of the options for a South East Bristol urban extension could have good access to new and existing facilities. The Hicks Gate development in option B particularly had good access to Bristol facilities and services due to good public transport accessibility. Access to facilities in Keynsham from the Whitchurch development set out in option D could cause considerable impact on Queen Charlton due to increased transport links needed across this area. Options A and D performed best in creating a stronger sense of community as they were concentrated in one area (Whitchurch) whereas options B and C were spread across 2 locations; and
- Access to learning is a major issue in the Somer Valley and therefore should be addressed however it is not implicit within the options. There was no clear preferred option for this area; all have their own merits and disadvantages.

5.5 Results of the Spatial Options Appraisals (2009)

The following discreet options were presented within the Core Strategy Spatial Options Consultation document (October 2009) and were subject to appraisal in August 2009:

District wide spatial options:

- Spatial vision and six strategic objectives
- Option 1 – new development focused in and around the cities with a limited role for the towns and rural areas;
- Option 2 – New development less focused on the cities with a greater role for the towns and rural areas.

Bath options

- Vision and spatial objectives;
- Bath spatial option A and B, maximum and minimum concentration responding to district-wide options 1 and 2;
- Areas of change – the riverside (4 zones); and
- The outer neighbourhoods.

New Neighbourhood in an urban extension to Bath options

- Vision and spatial objectives; and
- Spatial options SWB 1 and SWB 2.

Keynsham options

- Vision and spatial objectives;
- Keynsham strategic site;
- Strategic waste recovery facility site; and
- Spatial options 1 and 2.

New Neighbourhood at South East Bristol options

- Vision and spatial objectives; and
- Spatial options.

Midsomer Norton and Radstock options

- Vision and spatial objectives;
- Option 1 and 2; and
- Town Centre Strategic Sites.

Rural areas options

- Vision and spatial objectives; and
- Policy issues.

Core policies

- Renewable energy;
- Decentralised energy;
- Sustainable construction;
- Flood risk management;
- Infrastructure provision;
- Green infrastructure;
- Safeguarding minerals;
- Affordable housing;
- Gypsies, travellers and travelling showpeople;
- Urban design;
- Nature conservation;
- Landscape;
- Historic environment;

- World heritage site;
- Prosperous economy;
- Community services and facilities; and
- Accessibility and transport.

Detailed policy wording was not included in the Spatial Options document. At this stage the issues dealt with by the policies along with a suggested policy direction were indicated. The conclusions of the SA at the Options stage, along with the consultation responses and additional evidence, were used to inform the preparation of policy wording included in the Publication Core Strategy.

A summary of the results of the options appraisal can be found in Annex C. The full results of the Spatial Options appraisals are presented within the Core Strategy Spatial Options Interim Sustainability Appraisal Report Appendix A (September 2009, Revised December 2009), which can be found here:

<http://www.bathnes.gov.uk/environmentandplanning/planning/localdevelopmentscheme/Pages/corestrategy.aspx>

Key issues identified in the appraisal of options are presented below.

District Wide Vision and Objectives:

- Protecting habitats and biodiversity is not sufficiently covered within the vision or the Strategic Objectives. Reference should be made to the areas of particular importance for habitats, protected species and biodiversity and issues of climate change impact upon biodiversity should be included in Strategic Objective 1;
- Green Infrastructure should be referred to within the vision;
- The potential impact of climate change on the economy should also be picked up more clearly within Strategic Objective 1;
- Pollution, resources use, waste management and sustainable construction should be mentioned in the objectives.
- The vision includes ensuring that residents, visitors and workers can get around the district safely and with ease, but this does not necessarily mean by means other than the private car and this is therefore a potential inconsistency. and
- Care needs to be taken to ensure that the objectives address the full range of health issues especially health inequalities and linking the provision of leisure and recreation facilities to the promotion of healthy lifestyles.

District Wide Spatial Options

There is not much difference between the two options with regards to many of the SA objectives, however, Option 2, which focuses a little less development on the cities / urban extensions and more in Midsomer Norton and Radstock, Keynsham and the rural areas should better facilitate regeneration in these towns in order to improve their sustainability and provide more facilities and employment within certain villages. Option 2 appears to

perform best in maintaining cultural and historical assets as it reduces the pressure to develop Bath which holds great historic value. This option also performs well in supporting rural economies and retaining local distinctiveness. Option 2 presents greater opportunities to provide affordable housing in the rural area and within Keynsham, Midsomer Norton and Radstock.

Option 1 performs well for reducing the reliance on car travel, however, major improvements to the strategic transport infrastructure would be required along the A4 corridor for both options. Option 1 may perform better than Option 2 with regard to the provision of larger development sites (SE Bristol urban extension and brownfield land in Bath) which may improve the feasibility of decentralised energy.

Bath Vision and Objectives:

The vision and objectives do not deal with sustainable construction and resource consumption (water, energy, waste, materials) which should be integrated into all of the objectives for each local area within the plan.

The vision and objectives should be supplemented with reference to risks of climate change, reducing the impact of transport on the environment and people, reducing light pollution, areas of particular importance for habitats, protected species and biodiversity, local markets, community cohesion with regards to the proposed urban extension, equitable access to employment, Key Worker Accommodation and health inequalities and linking the provision of leisure and recreation facilities to the promotion of healthy lifestyles

Bath Spatial Options:

The appraisal did not find a vast degree of difference between options A and B, however the minimum concentration options (1b and 2b) have been identified as having potential benefit in terms of placing more employment and retail within the new urban extension which should improve its sustainability, reducing the need for HGVs to travel into the centre by locating bulky retail uses outside of the centre and potentially increasing local access to employment uses in areas other than the centre.

Key recommendations include:

- Reference should be made to the appropriate core policies which deal with sustainable construction and energy.
- The green infrastructure network should be referred to with regard to the potential location of development and how new development might be able to contribute to the network within the city.
- Care will be needed not to increase light pollution, particularly in the river corridor area and it would be advisable to mention avoiding light pollution within any design principles for Bath; and
- There is no mention of reducing the need/desire to travel by car within the options. The travel strategy for Bath should be mentioned.

Keynsham Vision and Objectives:

The vision and objectives have good coverage of the SA Objectives, although a number of gaps have been identified. Recommendations have been made in relation to some gaps, however, others are considered to be dealt with sufficiently within the District-wide vision and objectives. Recommendations relate to flood risk, education facilities and community safety.

Keynsham Spatial Options

The development planned in Keynsham presents a key opportunity to reduce the town's carbon footprint. The key differences between the options 1 and 2 are the more intensive use of the strategic site in Option 2 and for mixed use instead of office led regeneration. Option 2 would provide a higher number of new homes (1,600) which it is proposed will bring with it more developer contributions to be used to improve the public realm in the High Street and thus boost the regeneration of the retail sector in the High Street.

Options 1 and 2 perform similarly on a number of aspects but the greater number of homes proposed in the strategic site may make low carbon / renewable energy technologies more viable. Option 2 also uses more Greenfield land for development and therefore provides less access to green space than option 1 and may present increased flood risk as it will reduce green space which provides a water attenuation function. It should be demonstrated that the options, particularly Option 2, will provide sufficient accessible green space for all. Green infrastructure should be included within spatial plans for the town.

The suitability for land within the Somerdale site for development should be determined, particularly if Option 2 is taken forward as a preferred option.

Midsomer Norton and Radstock Vision and Objectives

The vision now addresses issues such as a step change in jobs, regeneration, becoming a more self contained hub, having a rich natural environment and the vision now states that the area will be a centre for sustainable energy.

Two areas of weakness have been identified in the objectives. The first is the removal of the following from the housing objective: "by providing an appropriate mix of dwellings in sustainable locations". It would be useful if the concept of sustainable housing were reinstated to the objectives. The second is the fact that the vision and objectives do not deal with sustainable construction and resource consumption (water, energy, waste, materials) which should be integrated into all of the objectives for each local area within the plan. An additional objective could be added which covers minimising resource use and ensuring sustainable, secure design.

Midsomer Norton and Radstock Spatial Options:

Option 1 performs better in some of the environmental criteria because the general level of development in Option 1 is lower (1000 houses and 1050 jobs compared to 1700 houses and 1900 jobs for Option 2) and more likely to occur on previously developed land. Because of the quantum of development, Option 1 will contribute less to the provision of affordable houses and health/education services.

Both options will maintain the separation between settlements and local settings and identifies and the effect of both options on most of the key environmental criteria will depend on how the core policies of the LDF are applied.

Option 2 performs better than Option 1 in many of the social criteria as many of the regeneration objectives and highlighted projects (such as the Midsomer Norton town park) need funding from private development to guarantee their success.

Option 2 performs better economically as it will provide for more jobs and will also provide different types of employment sites from town centre office development, mixed use development and business park development uses.

Key recommendations include:

- As the policy develops it will be important to set out what additional healthcare facilities might be needed in the town under the preferred option.
- Access to learning is a major issue in Midsomer Norton and Radstock and therefore should appear more prominently in the preferred options document.
- The preferred option needs to be clearer about the infrastructure that will be developed to support development.
- It is currently unclear whether flood issues would stop development of housing on strategic sites in Midsomer Norton and Radstock and the preferred options paper needs to address this issue.

Rural Areas Vision and Objectives:

The main changes are the removal of the specific reference to the Cotswold's and Mendips AONBs, the addition of a reference to healthier lifestyles and the addition of references to functional networks of priority habitats that are more resilient to climate change.

Only one area of weakness has been identified and this is the fact that the vision and objectives do not deal with sustainable construction and resource consumption (water, energy, waste, materials) which should be integrated into all of the objectives for each local area within the plan.

Rural Areas Policy Options:

Option 1 would be positive in many ways because it would enable services and facilities to be developed in key settlements and the quantum of development likely would make these

services (and public transport services) more viable. However, those villages which are remote from this select list would have more difficulty accessing rural services. Option 2 would mean more villages have access to a policy C settlement but the levels of development in this more dispersed pattern may mean none of these services are actually viable.

Policy Issue Rural B (rural affordable housing exceptions) could be positive in those villages where there is an acute affordability problem. However, the policy could result in development in unsustainable locations. Rural exception sites should be used in conjunction with other policy instruments which tackle affordability more widely.

Policy Issue Rural C addresses rural diversification and would lead to stronger, more cohesive communities through sense of ownership and improved use of current rural facilities.

Core Policies:

- There has been significant development of the Core Policies since the last feedback in 2008. Many of the comments made by the SA team have been taken on board including better references to community participation, cohesion and health, reducing crime, access to services, availability of local produce, local distinctiveness, sustainable construction and supply of renewable energy.
- Areas highlighted for development include:
- Evidence-based development of the affordable housing policy;
- Wider issues of sustainable construction should be included for non-residential development – for example, BREEAM targets. A separate SPD is recommended comprehensively covering sustainable design and construction requirements for all major developments.;
- It would be useful if the renewable energy proposed policy addressed the potential for the development of energy infrastructure to affect the integrity of Natura 2000 sites;
- Consider whether it would be useful to include a flooding policy which addresses other aspects of climate change adaptation and sustainable drainage systems and the levels of attenuation that developments should attain;
- The HRA screening assessment has identified the potential for effects on Natura sites with relation to the potential provision of renewable energy infrastructure, flood risk management, safeguarding minerals, waste, gypsies travellers etc., and historic environment. In addition, the HRA has identified the potential for impacts on Natura sites from any major infrastructure provision and accessibility and transport provision which may need further review once details are known.

Urban Extensions

Through the appraisal of the Spatial Options Consultation document (October 2009) the SA appraised and compared the merits and disadvantages of 2 options for urban extensions to

the South East of Bristol, at Whitchurch and at Hicks Gate which are adjoining the Bristol City Council administrative area and 2 options for urban extensions to Bath, at Twerton to the west of the city and on the Odd Down plateau to the south. A summary of the performance of the urban extension options appraised in 2009 can be found in Annex C. Please note that the summary has been updated following consultation responses received in relation to the Interim Sustainability Appraisal Report (September 2009).

The appraisal of the options found that, as was the case at the Issues and Options stage (when slightly different options were considered), each option was associated with its own merits and disadvantages.

There are a number of factors which are common to all of the options for urban extensions. All of the urban extension options would result in the development of Greenfield land and the loss of soil resources. They would all need to be designed with an integrated multifunctional green infrastructure network, which provide SUDS / surface water infiltration / rainwater interception, habitats and recreation functions.

Large scale developments such as urban extensions offer significant benefits over smaller scale developments in respect of local energy sources and district energy infrastructure, and as such offer greater sustainability benefits in this respect.

Another benefit of urban extensions is that they allow a comprehensive community to be created, which is well planned and with adequate infrastructure. When designed and planned well, urban extensions can provide benefits to surrounding neighbourhoods. A challenge to successful urban extensions is achieving cohesion between existing and new communities.

The chosen District Spatial Strategy included within the Publication Core Strategy moved away from urban extensions. The options presented within the Core Strategy Spatial Options consultation document (October 2009) did not include an option with no urban extensions. As such, it is difficult to compare the potential positive and negative effects of the options considered in the Spatial Options document with the spatial strategy presented within the Publication and the Submission Core Strategy.

In order to ensure that the sustainability implications of the District Spatial Strategy (DW1) which does not include urban extensions are fully understood, an additional assessment has been undertaken to examine the implication of moving away from the options of urban extensions considered in the Core Strategy Spatial options consultation document (October 2009). This exercise is presented, along with background information, in Annex E. The assessment has considered and compared (as far as possible) the effects of the options which included urban extensions appraised through SA in 2009 and the effects of the Publication Core Strategy District Spatial Strategy appraised as a part of the whole Publication Core Strategy in 2010.

5.6 How the SA has Informed development of the Core Strategy

The SA has presented the positive and negative effects of the options previously consulted on in order to inform decision making. In most cases, no one option was identified as a preferred option with regards to the SA. The SA of options influenced the development of the Publication Core Strategy and the subsequent Submission Core Strategy in the following specific ways:

- The Core Strategy objectives now include references to health and wellbeing, Addressing health inequalities, safety, increasing local food production, provision and access to training, especially in the Somer Valley, reducing the need and desire to travel by car and access to high quality sustainable transport, promoting local character and distinctiveness, the protection and provision of green infrastructure and climate change, energy and CO₂ reduction.
- More detail is provided in relation to flood mitigation measures needed in specific settlements e.g. Bath;
- Greater emphasis on how air quality issues will be addressed in Bath have been included in the Bath Strategy chapter;
- Creating safe places has been included in the Environmental Quality Policy (CP6);
- The integration of affordable housing into new developments has been added to policy CP 9;
- References to the need to consider archaeological impact of CHPs and cumulative impacts of new developments on social infrastructure / community facilities have been added to supporting text;
- Greater emphasis has been given to increasing the availability of local produce and materials in the Core Strategy;
- The addition of cultural assets to the policy covering historic environment (policy CP6);
- Enhancement as well as protection/safeguarding of nature conservation assets has been added to the policy covering nature conservation (CP6) and also taking account of climate change through the enhancement of wildlife corridors and green infrastructure;
- Wider issues of sustainable construction are now covered in a specific sustainable construction policy which includes standards for sustainable design for residential and non-residential development which change over time in response to Government targets;
- A specific decentralised energy policy is now included (policy CP4);
- Consideration of pollution and utilities provision is included in policy CP11 Gypsies, Travellers and Travelling Showpeople Policy;
- The inclusion of markets is included in policy CP12;
- Greater emphasis is given to sustainable transport in the Rural Areas Strategy chapter; and

- Inclusion of the reuse of the Cadbury's buildings in policy KE2.

6 Results of the Appraisal

What the SEA Regulations say...

Information for Environmental Reports...

6. The likely significant effects on the environment, including short, medium and long term effects, permanent and temporary effects, positive and negative effects, and secondary, cumulative and synergistic effects on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage (including architectural and archaeological heritage) and landscape (and the inter-relationship between the issues above).

7. The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme.

8. An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know how) encountered in compiling the required information.

The full results of the appraisal are reported in Annex D to this report. Potential cumulative effects of the Core Strategy are identified in Section 6.1 and the matrices in Annex D.

6.1 Summary of the Findings of the Appraisal

Table 6.1 presents the significant effects of the vision, plan objectives, policies and strategies of the Core Strategy. Significant effects are considered to be those which are potential major positive, major negative, minor negative and uncertain. Unless otherwise stated, the effects in Table 6.1 are over the short, medium and long term. The effects presented in Table 6.1 include potential cumulative effects and are the effects of the policies and strategies before mitigation measures or recommendations have been taken on board by the policy authors.

Table 6.1: Summary of the Significant Effects of the Core Strategy Policies identified within the SA	
Policy or Strategy	Summary of Significant Effects of the Policy or Strategy (before mitigation)
Vision and Objectives	<p>The vision and objectives generally perform well against the SA objectives. Potential major positive effects have been identified in relation to 10 of the SA Objectives.</p> <p>An uncertain performance was recorded with regards to 'Objective 15: Reduce land, water, air, light, noise pollution' because it is not clear that avoiding pollution can be inferred from the high level reference to environmental quality within the vision. One potential minor negative effect has been identified as follows:</p> <ul style="list-style-type: none"> Objective 20: Promote waste management accordance with the waste hierarchy (Reduce, Reuse and Recycle): It is considered that waste management has been omitted from the vision and objectives.
District Strategy	<p>Major positive effects have been identified with regards to 4 of the SA Objectives.</p> <p>A potential major negative effect has been identified as follows:</p> <ul style="list-style-type: none"> Objective 15: Reduce land, water, air, light, noise pollution: the growth proposed in Bath could exacerbate the existing poor air quality within much of the city. Similarly, growth in Keynsham could also exacerbate the air quality issue on the High Street. <p>An uncertain effect has been identified as follows:</p> <ul style="list-style-type: none"> Objective 17: Ensure the development of sustainable and/or local energy sources and energy infrastructure: the redevelopment of brownfield sites could potentially have less opportunities for decentralised renewable energy solutions / zero carbon design compared with large scale urban extensions. From 2016 all new dwellings will need to be zero carbon and townscape constraints may be a constraint on on-site energy generation in Bath. <p>No potential cumulative effects have been identified.</p>
Shaping the Future of Bath A Spatial Strategy	<p>Major positive effects have been identified with regards to 3 of the SA Objectives.</p> <p>Minor negative effects are identified as follows (unless otherwise stated, effects are predicted over the short, medium and long term):</p> <ul style="list-style-type: none"> Objective 1: Improve accessibility to community facilities and local services, Objective 10: Ensure everyone has access to high quality and affordable public transport and promote cycling and walking and Objective 11: Reduce the need and desire to travel by car (in the medium and long term): Residents of the redeveloped MoD Ensleigh and, to a lesser degree, MoD Foxhill sites might not have such good access to the city

Policy or Strategy	Summary of Significant Effects of the Policy or Strategy (before mitigation)
	<p>centre or local centres;</p> <ul style="list-style-type: none"> Objective 2: Improve the health and well-being of all communities and Objective 15: Reduce land, water, air, light, noise pollution: Although the growth proposed in Bath is dependent on the Bath Package of transport measures, the Bath package was developed to address pre-Core Strategy issues. The extent which the Bath Package will improve air quality in the context of increased activity within the river corridor is uncertain, however the submission draft does now make reference to the implementation of an Air Quality Management Plan; and Objective 5: Reduce anti-social behaviour, crime and the fear of crime: The Bath Strategy does not address antisocial behaviour or other crime-related issues. Anti-social behavior has been identified as a problem in the city centre. <p>Uncertain effects are identified as follows:</p> <ul style="list-style-type: none"> Objective 19: Encourage careful and efficient use of natural resources: It unclear whether sustainable design principles will also apply to development elsewhere in the city, apart from in the Central Area and Western Corridor.
Keynsham Spatial Strategy	<p>Potential major positive effects were identified in relation to 10 of the SA Objectives.</p> <p>One major negative effect has been identified in relation to waste arisings because the potential waste facility at Broadmead Lane is not included as key infrastructure for the Keynsham spatial strategy and Policy KE2 does not make reference to the reuse of the buildings at the Somerdale site. The demolition of the Cadbury factory at Somerdale could produce large amounts of demolition material which could potentially be sent to landfill.</p>
Somer Valley Spatial Strategy	<p>The Strategy for the Somer Valley chapter and the three policies contained therein generally have a positive effect with regards to the SA Objectives. Potential major positive effects were identified with regard to 12 of the SA objectives.</p>
Rural Areas Spatial Strategy	<p>With regards to a number of the SA objectives, the strategy has the potential to have both a minor positive and a minor negative performance. The ability for the rural delivery strategy to address all barriers to access to services and facilities experienced by other villages is limited. Such mixed performances have been recorded with regards to the following SA Objectives:</p> <ul style="list-style-type: none"> Objective 1: Improve accessibility to community facilities and local services; Objective 2: Improve the health and well-being of all communities; Objective 4: Promote stronger more vibrant and cohesive communities;

Table 6.1: Summary of the Significant Effects of the Core Strategy Policies identified within the SA	
Policy or Strategy	Summary of Significant Effects of the Policy or Strategy (before mitigation)
	<ul style="list-style-type: none"> • Objective 9: Increase availability of local produce and materials; • Objective 10: Ensure everyone has access to high quality and affordable public transport and promote cycling and walking; and • Objective 11: Reduce the need and desire to travel by car. <p>A major positive effect was identified in relation to Objective 8: Enable local businesses to prosper.</p> <p>The performance of the rural delivery strategy with regards to a number of the SA Objectives was minor positive but with some uncertainty, because the scale of development proposed in the rural areas is not significant, however, it could involve the development of Greenfield land and therefore some uncertainty exists with regards to potential effects relating to landscape and visual, ecology and biodiversity and archaeology. This relates to the following SA Objectives:</p> <ul style="list-style-type: none"> • Objective 12: Protect and enhance local distinctiveness; • Objective 13: Protect and enhance the district's historic, environmental and cultural assets; and • Objective 14: Encourage and protect habitats and biodiversity (taking account of climate change). <p>A potential negative cumulative effect has been identified in relation to housing development putting pressure on existing facilities, such as schools, public transport, Park and Ride facilities. This effect should be mitigated by the Infrastructure Provision Core Policy which requires new development to be supported by the timely delivery of the required infrastructure to provide balanced and more self contained communities. The supporting text of the Infrastructure Provision Core Policy states that 'infrastructure' includes physical, social and green infrastructure. However, policy wording is needed to ensure that housing developments consider the potential for cumulative effects with regard to social infrastructure / community facilities.</p>
Core Policies	
Energy Hierarchy, CP1 Retrofitting Existing Buildings, CP2 Sustainable Construction, CP3	<p>Energy hierarchy and policies CP1 to CP4 generally perform well against the SA Objectives. Potential major positive effects have been identified in relation to 8 of the SA.</p> <p>One potential major negative effect was identified in relation to Objective 13: Protect and enhance the district's historic, environmental and cultural assets because there is a potential conflict between CHP distribution networks and underground archaeology. A potential positive cumulative effect has been identified because measures encouraged through the energy hierarchy policy and policies CP1 to CP4 could result in an overall</p>

Table 6.1: Summary of the Significant Effects of the Core Strategy Policies identified within the SA	
Policy or Strategy	Summary of Significant Effects of the Policy or Strategy (before mitigation)
Renewable Energy, CP4 District Heating	cumulative effect on reducing greenhouse gas emissions.
CP 5 Flood Risk Management	A potential major positive effect has been identified in relation to Objective 18: Reduce vulnerability to, and manage flood risk (taking account of climate change). No potential negative or uncertain effects have been identified.
CP6 Environmental Quality	No potential negative or uncertain effects have been identified. Potential major positive effects have been identified in relation to 5 of the SA Objectives.
CP7 Green Infrastructure	No potential negative or uncertain effects have been identified. Potential major positive effects have been identified in relation to four SA Objectives. A potential positive cumulative effect has been identified for 'SA Objective 14: Encourage and protect habitats and biodiversity (taking account of climate change)' through the provision of additional green infrastructure and achieving greater connectivity of habitats across the district and sub-region. This could benefit a variety of species in climate change adaptation, improve biodiversity and reduce habitat fragmentation.
CP8 Green Belt	One potential major positive effect has been identified in relation to 'SA Objective 12: Protect and enhance local distinctiveness'.
CP9 Affordable Housing and CP10 Housing Mix	Both policies perform very well with regards to 'SA Objective 2: Improve the health and well-being of all communities' but Policy CP10 has a mixed performance (minor positive and uncertain) with regards to 'SA Objective 3: Meet identified needs for sufficient, high quality and affordable housing' because it is not clear how housing that meets the needs of older people, disabled people and those with other special needs will be delivered. Policy CP9 could have a minor negative effect with regards to 'SA Objective 4: Promote stronger more vibrant and cohesive communities' because it does not stipulate that affordable housing should be fully integrated into developments with market housing.
CP11 Gypsies, Travellers & Travelling Showpeople Policy	A potential minor negative effect has been identified as follows: <ul style="list-style-type: none"> Objective 20: Promote waste management accordance with the waste hierarchy (Reduce, Reuse and Recycle): This policy does not mention providing suitable space and / or facilities for the storage and collection of recyclables. A potential uncertain effect has been identified as follows: <ul style="list-style-type: none"> Objective 15: Reduce land, water, air, light, noise pollution: This policy requires adequate services for foul water, surface water and waste

Table 6.1: Summary of the Significant Effects of the Core Strategy Policies identified within the SA	
Policy or Strategy	Summary of Significant Effects of the Policy or Strategy (before mitigation)
	disposal but does not include consideration of the storage of hazardous substances such as fuels or the vulnerability of groundwater and therefore an uncertain effect is recorded.
CP12 Centres and Retailing	<p>This policy generally performs well. Potential major positive effects have been identified in relation to six of the SA Objectives.</p> <p>Uncertainty was recorded with regards to the following SA Objectives:</p> <ul style="list-style-type: none"> • Objective 2: Improve the health and well-being of all communities; • Objective 5: Reduce anti-social behaviour, crime and the fear of crime; and • Objective 9: Increase availability of local produce and materials.
CP 13 Infrastructure Provision Policy	<p>Potential major positive effects have been identified in relation to 'SA Objective 2: Improve the health and well-being of all communities' and 'SA Objective 4: Promote stronger more vibrant and cohesive communities'.</p> <p>The following potential indirect positive effects have been identified as follows:</p> <ul style="list-style-type: none"> • Objective 5: Reduce anti-social behaviour, crime and the fear of crime: There is an indirect relationship between crime and safety and the provision of social infrastructure, which could help to reduce anti-social behaviour by providing welfare and leisure facilities for young people, for example; • Objective 7: Ensure communities have access to a wide range of employment opportunities, paid or unpaid: an indirect positive effect may occur as some jobs may be provided through the provision of social infrastructure such as healthcare, education, welfare, leisure etc; and • Objective 14: Encourage and protect habitats and biodiversity (taking account of climate change): An indirect effect of this policy could be the enhancement of biodiversity through the provision of green infrastructure, which would also provide benefits for wildlife in light of climate change by providing migration routes between habitats.

Mitigation measures and recommendations were put forward in the appraisal matrices and these have been considered by the policy authors. The matrices in Annex D record the responses to the mitigation measures and recommendations made in the appraisals and Tables F.1 and G.1 in Annexes F and G record the residual effects of the policies and strategies after the changes have been made in response to the mitigation measures and recommendations by policy authors.

6.2 Potential Cumulative Effects

The SEA Regulations require an assessment of cumulative effects. Cumulative effects arise, for instance, where several developments each have insignificant effects but together have a significant effect; or where several individual effects of the plan (e.g. noise, dust and visual) have a combined effect. The term can also be used to describe synergistic effects, which interact to produce a total effect greater than the sum of the individual effects.

A separate cumulative effects assessment has been undertaken following the assessment of the individual policies. The cumulative effects assessment has considered potential cumulative effects of other programmes, plans, policies and projects with the effects of the Core Strategy for BANES and the cumulative effects of different policies within the plan.

The potential cumulative effects for the different policies within the plan have been identified as part of the appraisal of the individual policies and are recorded within the appraisal matrices within Table 6.1 and Annex D. The potential cumulative effects which were identified are summarized in Table 6.2.

In addition, a number of programmes, plans, policies and projects have been identified as potentially having effects on receptors within the Bath and North East Somerset Area. The programmes, plans, policies and projects have been identified on the basis of forthcoming activities / development which would occur within the plan period to 2026 and relate only to published plans or related documents (such as options consultation documents).

The cumulative assessment with the other plans, policies and projects is presented in Table H.1 in Annex H.

Potential negative cumulative effects have been identified in relation to air quality and traffic as a result of the following plans:

- Wiltshire Core Strategy; and
- Bristol Core Strategy Submission version (2010).

In addition, uncertain cumulative effects have been identified in relation to the following plans:

- North Somerset Core Strategy;
- Mendip Core Strategy; and
- West of England Joint Waste Core Strategy.

6.3 Residual Effects

Table 6.2 presents the potential residual negative and uncertain effects of the Core Strategy which have not been directly addressed by revisions to the Core Strategy at this stage. Indicators for monitoring these potential effects are proposed in Section 7.

Table 6.2: Residual Effects of the Core Strategy

Policy or Strategy of the Core Strategy	Potential negative or uncertain effects	Reasoning	Suggested mitigation	Response from policy authors
Vision and objectives	A minor negative effect in the short, medium and long terms with regards to SA Objective 20: Promote waste management accordance with the waste hierarchy (Reduce, Reuse and Recycle).	The vision and strategic objectives do not specifically refer to waste arisings or waste management and therefore it is considered that waste management has been omitted from the vision and objectives.	Sustainable waste management, reducing waste arisings and the waste hierarchy should be referred to within strategic objective 1;	Sustainable waste management, including reducing waste arising and the waste hierarchy is fully covered in the Joint Waste Core Strategy.
DW1 District Spatial Strategy and Bath Strategy	<p>A minor negative effect in the short, medium and long terms with regards to SA Objective 15: Reduce land, water, air, light, noise pollution.</p> <p>If the Bath Package does not go ahead, this could be a major negative effect with regards to air quality.</p>	The District Strategy directs new development to Bath and although measures are referred to within the Bath Strategy to manage transport in Bath in order to achieve sustainable circulation and access, a risk remains that existing poor air quality could be exacerbated by growth in the City.	<p>The area-based policies will need to identify if any transport related infrastructure is needed in order to deliver the proposed growth in each area.</p> <p>The spatial strategy should provide more information on the reasoning behind the direction of new jobs to certain places and what it is hoped will be achieved (e.g. balance between jobs and homes, reducing commuting elsewhere for certain types of jobs).</p>	<p>The place based sections identify transport infrastructure improvements needed to support the strategy with an emphasis on sustainable means of transport.</p> <p>Para 1.25 (Summary Spatial Strategy for B&NES) seeks to locate new development in the most sustainable locations and addresses the issue of outcommuting. This provides the context for the more detailed explanation in the place-based sections. A fuller explanation (with links to the relevant evidence) of the District-wide strategy will also be set out in a supporting</p>

				Information Paper.
CP11 Gypsies, Travellers & Travelling Showpeople Policy	A minor negative effect in the short, medium and long terms with regards to SA Objective 20: Promote waste management accordance with the waste hierarchy (Reduce, Reuse and Recycle).	The policy requires sites for gypsies, travellers and travelling showpeople to have adequate services including waste disposal but does not mention suitable space and / or facilities for the storage and collection of recyclables.	The fifth bullet point should be reworded to read 'adequate services including foul and surface water and waste disposal and recycling can be provided';	The third bullet point of the policy will ensure that the site is large enough to allow for adequate space for on-site facilities and amenity which could include space and / or facilities for the storage and collection of recyclables. Itemising every facility a site may provide in the policy will unnecessarily lengthen it.
West of England Joint Waste Core Strategy	Uncertain potential for negative cumulative effects on air quality and traffic.	This potential effect would be in combination with the B&NES Core Strategy in relation to allocated residual waste management site at: <ul style="list-style-type: none"> • BA19 Broadmead Lane, Keynsham; and • BA12 Former Fuller's Earth Works, Fosseway, Bath. The potential technology to be used at these sites would be determined by a private planning application.	Any planning applications for residual waste treatment facilities would be subject to Environmental Impact Assessment which would include the consideration of cumulative effects. This effect is very uncertain. No further mitigation can be suggested in this instance which would reduce the uncertainty.	No response required.
Mendip Core Strategy	The potential for a negative cumulative effect in relation to the B&NES Core Strategy is uncertain.	The spatial strategy and quantum of housing and employment development are not known.	At this stage of the development of the Mendip Core Strategy there is a lack of certainty over quantum and location of development therefore it is not appropriate for the B&NES Core	No response required.

			Strategy to put forward mitigation for this uncertain effect.	
North Somerset Core Strategy	The potential for a negative cumulative effect in relation to the B&NES Core Strategy is uncertain.	The expansion of Bristol Airport could potentially increase traffic movements across B&NES, if increased flights are proposed. However, the potential for a negative effect with regards to traffic is uncertain as it is not clear whether increases in traffic on certain roads within B&NES is likely.	There is no mitigation that can be put forward to reduce the uncertainty of whether a cumulative effect could occur and it is not within the remit of the B&NES Core Strategy to address potential effects of traffic associated with Bristol Airport.	No response required.
Bristol Core Strategy Submission version (2010)	Potential negative cumulative effect on air quality and traffic congestion	There is a focus of new housing development in south Bristol. This could potentially increase traffic commuting into Bath from Bristol which could potentially lead to a negative cumulative effect on air quality and traffic congestion affecting Bath and Keynsham.	<p>The Bath Package would mitigate for cumulative effects with regards to air quality and traffic in Bath. However, there is currently uncertainty that the Bath Package will receive the funding that it needs in order to go ahead. There would also be a need for the Bath Package to come forward in time for development outside of Bath to ensure people are using sustainable methods of travel to enter Bath.</p> <p>The Greater Bristol Bus Network will link Bristol, Bath, Keynsham, Midsomer Norton and Radstock with showcase bus corridors. The Greater Bristol Bus Network</p>	No response required.

			would mitigate for cumulative effects in Keynsham by improving the bus services between Bristol, Keynsham and Bath.	
Wiltshire Core Strategy	Uncertain potential negative cumulative effect on air quality and traffic levels in Bath.	Growth in Chippenham and Bradford on Avon could potential increase commuting into Bath which could result in a potential negative cumulative effect on air quality and traffic levels in Bath. However, this is uncertain because the balance of employment use and housing that would be proposed within these settlements (and therefore the potential for the balance to mitigation in commuting) is not known.	Cumulative effects associated with increased congestion in Bath from in commuting from Chippenham and Bradford on Avon could be mitigated through the Bath Package which includes a new park and ride on the east of Bath. However, there is currently uncertainty that the Bath Package will receive the funding that it needs in order to go ahead.	No response required.

7 Monitoring

7.1 Introduction

What the SEA Regulations say...

Information for Environmental Reports...

9. A description of the measures envisaged concerning monitoring in accordance with regulation 17, which states:

17 (i) The responsible authority shall monitor the significant environmental effects of the implementation of each plan or programme with the purpose of identifying unforeseen adverse effects at an early stage and being able to undertake appropriate remedial action.

17 (ii) The responsible authority's monitoring arrangements may comprise or include arrangements established otherwise than for the express purpose of complying with 17(i).

The SEA Regulations require the significant environmental effects of plans and programmes to be monitored, in order to identify at an early stage unforeseen adverse effects and to be able to take appropriate action where necessary.

The monitoring undertaken on the Core Strategy will help to:

- Monitor the significant effects of the plan;
- Track whether the plan has had any unforeseen effects;
- Ensure that action can be taken to reduce / offset the significant effects of the plan;
and
- Provide baseline data for the next SA and to provide a picture of how the environment / sustainability criteria of the area are evolving.

The requirements of the SEA Regulations focus on monitoring the effects of the plan. This equates to both the plan's significant effects and also unforeseen effects. It may be difficult to implement monitoring mechanisms for unexpected effects, or to attribute such effects to the implementation of the Core Strategy when they occur. Due to this difficulty we have suggested a number of more general monitoring indicators which are linked to the SA Objectives (contextual indicators, see Annex I).

The Good Practice Guide on Local Development Frameworks advises that the monitoring of significant sustainability effects should be integrated with other monitoring of Local Development Frameworks. For this reason, B&NES Council will report significant sustainability effects in future Annual Monitoring Reports published each December. The significant sustainability effects indicators have been drawn from the indicators in the baseline data of this SA (contextual indicators). Separate indicators are identified to monitor potential significant adverse effects identified within the appraisal of policies. The indicators aim to:

- Concentrate on the key sustainability issues identified in the appraisal;
- Provide information to identify when problems, including unexpected ones, arise; and
- Contribute to addressing deficiencies in data availability identified in this appraisal.

Monitoring will allow the Council to identify whether the recommended mitigation measures from the SA have been effective and develop further mitigation proposals that may be required where unforeseen adverse effects are identified. In some cases monitoring may identify the need for a policy to be amended or deleted, which could trigger a review of the Core Strategy, or for further policy guidance to be developed (for example an SPD).

Table 7.1 set outs the proposed significant effects monitoring programme. The proposed monitoring programme for contextual indicators is presented in Annex I. In terms of the significant effects highlighted through this SA, it is important that the indicators suggested are compatible as far as possible with those suggested as part of the AMR. Table 7.1 and Table I.1 in Annex I identify the proposed source of indicators, including whether they are monitored as part of the AMR.

Table 7.1: Proposed Monitoring Programme – Significant Effects Indicators

Potential issue	Proposed indicators	Published targets	Source of data	Frequency of reporting
Municipal waste	6b: Amount of municipal waste arising, and managed by management type and the percentage each management type represents of the waste managed	The recycling target in B&NES is 50% in 2009/10.	AMR	Annual
Construction waste	Tonnage of construction and demolition waste produced and proportion that is recycled / reused.	From Rubbish to Resource, The Regional Waste Strategy: to ensure that by the year 2020 over 45% of waste is recycled and reused and less than 20% of waste produced in the region will be landfilled. In cooperation with 4 district councils (West of England Joint waste Strategy) the aim is to reduce landfill by 75% over the next five years.	Environment Agency	Annual
Recycled aggregates	M2: Production of (i) secondary and (ii) recycled aggregates	N/A	AMR	Annual

Table 7.1: Proposed Monitoring Programme – Significant Effects Indicators

Potential issue	Proposed indicators	Published targets	Source of data	Frequency of reporting
Air quality	Annual Mean concentrations of all regulated air pollutants (i.e. benzene, 1,3 butadiene, carbon monoxide, lead, nitrogen dioxide, particles (pm ₁₀), sulphur dioxide)	Member States are required to reduce exposure to PM2.5 in urban areas by an average of 20% by 2020 based on 2010 levels. It obliges them to bring exposure levels below 20 micrograms/m ³ by 2015 in these areas. Throughout their territory Member States will need to respect the PM2.5 limit value set at 25.	B&NES	Bi-annual

8 Next Steps

A Sustainability Appraisal (SA) Adoption Statement will need to be published in accordance with the SEA Regulations (Statutory Instrument 2004 No. 1633 on The Environmental Assessment of Plans and Programmes). These regulations state that as soon as reasonably practicable after the adoption of the plan a statement should be produced and published setting out how environmental considerations and opinions expressed through consultation have been taken into account in the planning process.

The SEA Regulations set out the particulars that should be covered by the statement as follows:

- How environmental (sustainability) considerations have been integrated into the Core Strategy DPD;
- How the Environmental (SA) Report has been taken into account;
- How opinions expressed in response to consultation have been taken into account;
- The reasons for choosing the Core Strategy DPD as adopted, in the light of the other reasonable alternatives dealt with; and
- The measures that are to be taken to monitor the significant environmental (sustainability) effects of the implementation of the Core Strategy DPD.

For further information on the timetable with regard to the next steps in the production of the Core Strategy please contact the Planning Policy team on 01225 477548.