



Dacorum Local Development Framework Core Strategy – Consultation Draft

Sustainability Appraisal Report

November 2010



FINAL PROJECT REPORT: CPR920

Dacorum Local Development Framework Core Strategy – Consultation Draft

Sustainability Appraisal Report

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Prepared for: Dacorum Borough Council

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1 Introduction

1.1 Background to Sustainability Appraisal/Strategic Environmental Assessment

New regulations require planning authorities to replace their Local Plans with Local Development Frameworks (LDF). Dacorum's Core Strategy and its other development plan documents, form part of its LDF and must be subject to both Sustainability Appraisal and Strategic Environmental Assessment under the Planning and Compulsory Purchase Act (2004) and The Environmental Assessment of Plans and Programmes Regulations (2004) which implement European Directive 2001/42/EC, known as the Strategic Environmental Assessment (SEA) Directive.

Both the SA and the SEA processes help planning authorities to fulfil the objective of contributing to the achievement of sustainable development in preparing their plans through a structured assessment of the objectives and Core Strategies against key sustainability issues.

Although the requirement to carry out both an SA and SEA is mandatory, it is possible to satisfy the requirements of both pieces of legislation through a single appraisal process. Government guidance for undertaking SEA and for SA of Development Plan Documents in particular details how the SA and SEA should be integrated into one process. The final output of the process is a combined Sustainability Appraisal/Environmental Report which will be published alongside the plan. This report will be referred to as the SA/Environmental Report.

1.1.1 Purpose of this Sustainability Report

The SEA regulations require that the sustainability appraisal results of the Submission Draft shall be consulted with statutory bodies and with members of the public to obtain their views prior to adoption of the DPD Core Strategy. In addition to declaring results of the assessment, the Sustainability Report proposes mitigation measures/recommendations to enhance sustainability features of the Core Strategy Policies, as well as proposing a monitoring framework for all significant sustainability issues identified during the assessment. Whilst various versions of the SA Report were prepared at each stage of the Core Strategy, this report, together with any necessary updates, will accompany the Submission Draft version of the DPD and will be taken forward for submission to the Secretary of State after completing the statutory procedures of the regulation.

1.1.2 Background to the Project

This SEA/SA is being carried out as part of a joint project commissioned by the four Hertfordshire local authorities situated in the south west of the county – Dacorum Borough Council, St Albans City and District Council, Three Rivers District Council, and Watford Borough Council. The Centre for Sustainability (C4S) at TRL Ltd and their project partners Halcrow Group Ltd have been appointed to undertake this project.

By joining together in this way the four authorities aim to make the project more efficient by utilising a common appraisal methodology; although authority specific issues will also be addressed.

Whilst this Sustainability Report is being produced specifically for Dacorum's Development Plan Documents, much of the data presented in this report also relates to all four authorities.

1.2 Sustainability Appraisal (SA)

Sustainability Appraisals (SAs) are a process of evaluating the social, environmental, and economic implications of emerging strategies, policies and plans. This process is

intended to make certain that plans and their goals¹ and policies are in accordance with the underlying principles of sustainable development. SA seeks to ensure that the five principles and four agreed priorities for sustainable development are addressed²:

Principles:

1. Living within environmental limits;
2. Ensuring a strong healthy and just society;
3. Achieving a sustainable economy;
4. Promoting good governance; and
5. Using sound science responsibly.

Priorities:

- Sustainable consumption and production;
- Climate change and energy;
- Natural resource protection and environmental enhancement; and
- Sustainable communities.

1.3 Strategic Environmental Assessment (SEA)

European Union Directive 2001/42/EC requires a formal Strategic Environmental Assessment (SEA) of all plans and programmes which are likely to have significant effects on the environment. It aims: *"...to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development, by ensuring that, in accordance with this Directive, an environmental assessment is carried out of certain plans and programmes which are likely to have significant effects on the environment"* (Article 1).

The Directive defines environmental assessment as a procedure comprising:

- The preparation of an Environmental Report on the likely significant effects of the draft plan or programme;
- carrying out consultation on the draft plan or programme and the accompanying Environmental Report;
- Taking into account the Environmental Report and the results of consultation in decision making; and
- Providing information when the plan or programme is adopted showing how the results of the environmental assessment have been taken into account.

SEA is required to be undertaken alongside the preparation of the plan to which it relates to allow strategic alternatives to be formally incorporated into it at the earliest opportunity. This process, in conjunction with the requirements of the SA, should ensure that the environmental, social, and economic implications are fully integrated into emerging policies and strategies.

1.4 Methodology

Figure 1-1 illustrates the relationship between the DPD plan making and the SA/SEA process.

¹ Note that the term "objective" is used throughout this document in reference to SA/SEA objectives to be consistent with the vocabulary outlining these processes, despite the fact that they are not truly objectives.

² As set out in "Securing the Future: Delivering a UK sustainable development strategy", DEFRA 2005

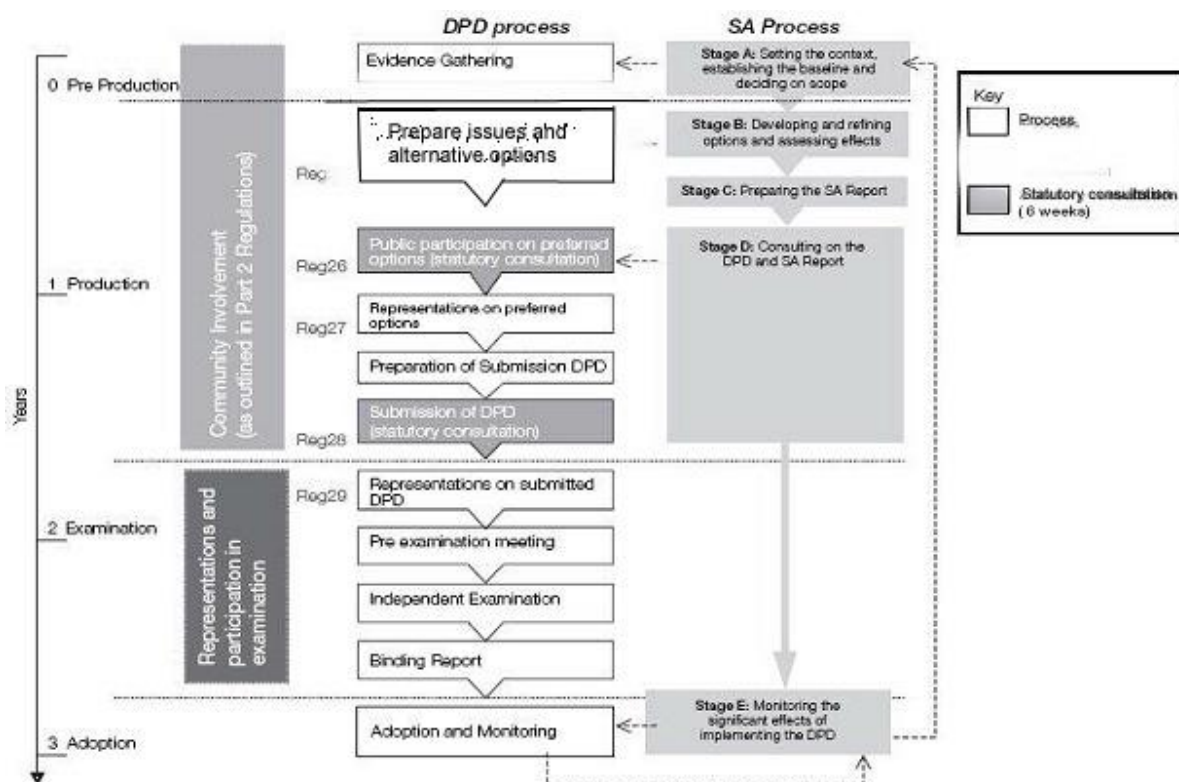


Figure 1-1: The DPD and SA/SEA process (Source: ODPM, 2005)

The key stages of the SA/SEA process are broadly presented in Table 1-1.

Table 1-1: Stages in the SA/SEA and Dacorum Core Strategy DPD

Dacorum Core Strategy DPD	SA/SEA Stages	Dates
Begin Document Preparation	Stage A: Setting the context, establishing the baseline and deciding on the scope <ul style="list-style-type: none"> A1: identify other relevant policies, plans and document programmes, and sustainability objectives. A2: collecting baseline information. A3: Identifying sustainability issues and problems. A4: Developing the SA framework. A5: Consulting on the scope of the SA (Scoping Report). 	SA Scoping Report, prepared February 2006. Consultation on Scoping Report February 2006.
Preparation of Issues and Options (I&O) paper and consultation Preparation of preferred options, including consultation on possible preferred option	Stage B: Developing and refining options and assessing of effects <ul style="list-style-type: none"> B1: Testing the DPD objectives against the SA framework. B2: Developing the DPD options. B3: Predicting the effects of the DPD. B4: Evaluating the effects of the DPD. B5: Considering ways of mitigating adverse effects preferred and maximising beneficial effects. B6: Proposing measures to monitor the significant effects of implementing the DPDs. 	Consultation on Issues & Options (I&O) paper May 2006. Preparation of SA Working Note on I&O ¹ June 2006. Supplemental I&O paper November 2006. Preparation of SA Working Note on Supplemental I&O in November 2006. Consultation on the Emerging Core Strategy June – August 2009. Preparation of SA Working

Dacorum Core Strategy DPD	SA/SEA Stages	Dates
		Note on the Emerging Core Strategy June 2009. Preparation of SA Working Notes for: Housing Growth Options at Hemel Hempstead (August 2009); Strategic Allocations (February and April 2010) and Working Draft Core Strategy (September 2010)
Public consultation on Preferred options	Stage C: Preparing the Sustainability Appraisal Report. • C1: Preparing the SA Report .	Preparation of SA Report July - October 2010.
	Stage D: Consulting on the preferred options of the DPD and SA Report. • D1: Public participation on the preferred options of the DPD and the SA Report. • D2 (i) Appraising significant changes. • D2 (ii) Appraising significant changes resulting from representations. • D3: Making decisions and providing Information.	Consultation on Draft Core Strategy and accompanying SA Report November 2010.
Submission of DPD to Secretary of State	Stage E: Monitoring the significant effects of implementing the DPD • E1: Finalising aims and methods for monitoring. • E2: Responding to adverse effects. • Preparing the SEA Statement . ²	

¹This output is not required by the SEA Regulations but was produced to assist in selecting the preferred options.

²The SEA Statement is required by the SEA Regulations.

1.5 Report structure

The SEA Regulations require the Sustainability Report to clearly document findings of all stages of the SEA/SA process. The Report should show that the SEA Directive has been complied with and all components that meet these requirements should be easily identifiable. The reporting requirements and corresponding chapters contained in this report are shown below:

Chapter / Appendix	SEA Directive Requirement (abridged)
Chapter 2 Appendix A	Outline of contents, main objectives of the plan, and relationship with other relevant plans and programmes.
Chapters 3 and 4 Appendix B	Environment, social and economic baseline and likely evolution of the current state without implementation of the plan/ programme; any existing environmental, social and economic problems which are relevant to the plan or programme Documenting environmental characteristics of areas likely to be significantly affected.
Chapter 3 Appendix A	Environmental protection objectives set out in national and regional policies, its relevance to the plan/ programme and the way these objectives are considered in the SA process.
Chapters 5, 6 & 7, Appendix E & F	The likely significant effects of the plan on the environment, including on issues such as biodiversity, water, soil, population, human health, material assets, cultural heritage, landscape and the inter-relationship between the above. These effects should include secondary, cumulative,

Chapter / Appendix	SEA Directive Requirement (abridged)
	synergistic, temporal and severity details.
Chapter 8	Mitigation measures to offset any identified significant effect.
Chapters 5, 6 & 7	Outline of reasons (through SA) for selecting alternatives (Initial Options) and documentation of difficulties encountered in the assessment.
Chapter 9	Description of monitoring arrangements proposed.
Non-Technical Summary document	Non-technical summary of information under all the above headings.
Appendix D	Consultation – results of the consultation of the previous SA Report for the Core Strategy DPD.

1.6 Consultation

The SEA Directive requires consultation of documents at various stages of the SA process, as indicated in Table 1-1. To date a consultation was held at the end of the scoping stage (February 2006).

The SEA Regulations and SA Guidance requires that the Scoping Report consultation and the Preferred Options Appraisal be carried out with stakeholders the Council finds appropriate to consult with, and four statutory environmental consultees i.e., Countryside Agency, English Nature (both now merged as Natural England), English Heritage and the Environment Agency. The aim of the scoping consultation was to ensure that all the relevant issues were identified and discussed at an early stage of the process so that they could be addressed during the SA and plan making. The list of those who were consulted, those who responded, along with a summary of the comments received and how they have been addressed are included in Appendix D.

Further consultation was also carried out on the Issues and Options SA Working Notes (in May and November 2006) and on the Emerging Core Strategy SA Working Note (in June 2009). No consultation responses were received in relation to these documents.

1.7 Geographic and Temporal Scope

The spatial scope for the assessment is largely local (Dacorum Borough); however the assessment takes into account potential regional impacts (such as on Three Rivers and St Albans) and national impacts, wherever appropriate. For example, the effect on CO₂ emissions is likely to have both local and national implications as any reduction will contribute to national targets, whereas effects on surface water quality may be most relevant to the regional water bodies as well as local water bodies, depending on presence of any such water features and on their existing quality.

The SA/SEA examines plans across three temporal scales:

- Short term effects: effects expected in the next 1-10 years;
- Medium term effects: effects expected in the next 10-20 years; and
- Long term effects: effects expected in the next 20+ years (after the life of the plan)

1.8 Habitats Regulations Assessment

In November 2007, a Screening Report was prepared to inform the Appropriate Assessment as part of Habitat Regulations Assessment (HRA). Screening is required where a plan, alone or 'in combination' with other plans, could affect Natura 2000 Sites (Special Protection Areas for birds – SPAs, Special Areas of Conservation for habitats - SACs) following Article 6(3) of the European Habitats Directive. These are sites which are designated by the EC Directive on the Conservation of Wild Birds 79/409/EEC and the EC Directive on the Conservation of Natural Habitats of Wild Fauna and Flora 92/43/EC.

The first phase of this screening involved an analysis of Dacorum's Issues and Options to ascertain any likely significant effects that may compromise the conservation objectives of nearby Natura 2000 sites. In agreement with Natural England, the statutory consultee for Appropriate Assessment screening, it was decided that Chilterns Beechwoods SAC was the only site of relevance to this screening. The next phase of the AA screening involved examining all other plans, programmes and projects that may affect the Chilterns Beechwoods SAC in conjunction with the Dacorum Issues and Options. This included the Issues and Options papers of St Albans City and District Council, Three Rivers District Council and Watford Borough Council.

The AA screening concluded that minor wording changes to some of the questions in the Dacorum's Site Allocations Issues and Options DPD, including giving more prominence to the Special Area of Conservation in the Dacorum area, Chilterns Beechwoods, when discussing designated areas would assist in the protection of the site. The biggest, if indirect, threat to the Chilterns Beechwoods SAC would come from any significant development to the west of Hemel Hempstead and/ or the implementation of the Hemel Hempstead Northern Bypass and the associated increases in recreational use and air pollution damage to the SAC. 'Significant development' was defined as any development larger in scale than a new residential neighbourhood.

Mitigation measures were recommended as being necessary if the options listed above were pursued (i.e. development to west of Hemel Hempstead, Hemel Hempstead Northern Bypass). These would need to be agreed with Natural England and could also be used as best practice to limit recreational pressure on Chilterns Beechwoods SAC even if the above options were not pursued.

Impacts from the Issues and Options overall, however, are not seen as being significant adverse effects and it is therefore not considered necessary to undertake a full Appropriate Assessment on the Dacorum Core Strategy Issues and Options.

2 Dacorum Core Strategy

The LDF is the emerging development plan for Dacorum Borough. LDFs are the new form of spatial development plan introduced by the Government's planning reforms in the Planning and Compulsory Purchase Act (2004). The LDF will replace the existing Dacorum Borough Local Plan 1991-2011. The new LDF will set out the strategy for the way in which land is used and to guide new development in the Borough for the period up to 2031 and beyond.

The LDF will consist of a portfolio of documents. Central to this portfolio is the Core Strategy, which sets out the overall vision for future development in the District and is the basis for later LDDs, including the Site Allocations DPD and Development Management Policies DPD. In addition to these statutory DPDs there will be a number of non-statutory Supplementary Planning Documents (SPDs), setting out more detailed guidance at a more specific level.

The Core Strategy will be the Council's first DPD. In July 2005, the Council produced a short Emerging Issues and Options Paper. In June 2006 the Council produced a more detailed consultation document on the Issues and Options of the Core Strategy. Additions to these options were made and a Supplemental Issues and Options Core Strategy produced in November 2006. The latter two documents were subject to a sustainability assessment and a SA Working Note was produced in June 2006 and an Additional Issues and Options SA Working Note was produced in November 2006.

Subsequently, based on other stakeholder responses to consultations, recommendations from the SA Working Note and emerging information from other regional and national policies, an Emerging Core Strategy was produced in June 2009. This document was again subject to a sustainability appraisal and refined with additions relating to strategic and non-strategic sites.

In July 2010, an informal Working Draft Core Strategy was published for targeted stakeholder consultation. An associated SA Working Note was published in September 2010. Based on the stakeholder responses, and other information from national, and regional policies, the Working Draft Core Strategy DPD has been refined and has now been produced as a consultation draft. This SA Report is to accompany the Consultation Draft version of the Core Strategy, and compiles the SA process records since the Scoping Report Stage and makes recommendations for monitoring any adverse effects identified by the SA.

SA working notes have also been completed for the Site Allocations Issues and Options (November 2006), Site Allocations Supplementary Issues and Options (November 2008) and Issues and Options for the East Hemel Hempstead Area Action Plan (June 2009). Some of this parallel assessment work has also informed the content of the Core Strategy.

2.1 Vision

The Draft Core Strategy sets out a Spatial Vision, Strategic Objectives and number of Policies. The Vision of what the Borough will be like in 2031 is as below:

DACORUM 2031: A VISION

Dacorum's Sustainable Community Strategy has been fulfilled. The community recognises Dacorum as a happy, healthy, prosperous and safe place in which to live and work and to visit. The natural beauty of the Chiltern Hills and the varied character of the countryside is admired and cherished.

The countryside is actively managed and supports a healthy local economy and diversity of wildlife. Water quality in the rivers is good. Towns and villages have sufficient water supply. Carbon emissions have been reduced and renewable energy production is sensitive to its surroundings. New woodlands have been planted for the future and the Borough looks much greener. Effective use has been made of developed land in the towns and villages, protecting the

countryside.

Hemel Hempstead has been transformed through regeneration of the town centre and Maylands business area. The town is fulfilling its potential as a sub-regional business centre, important for green enterprise, and is meeting the locally generated demand for new homes.

The market towns of Berkhamsted and Tring and the large villages provide all the necessary services for their communities and surroundings.

The economy is buoyant and all parts of the Borough have local employment opportunities, which are both varied and accessible.

Communities are inclusive and healthy. Minority groups are an accepted part of culture and diversity. New homes are affordable and cater for the needs of the population. Open space, facilities and services are accessible. New schools have opened and Hemel Hempstead has a new local hospital. Access to the Watford Health Campus is improved. Public transport is more widely used.

Differences in the character of each place are recognised and valued. Developments have added to character through their design, and sustainable construction is the norm. Special features, such as the Grand Union Canal, remain an active part of the heritage of the Borough. The wider historic environment is valued and protected.

2.2 Strategic Objectives

The Spatial Vision is supported by set of 20 strategic objectives developed for the four Core Strategy Themes and for Implementation and Delivery. Three objectives (marked with an asterisk (*)) are considered to be crosscutting. This means that they will not be achieved solely through the implementation of the Sustainable Development Strategy policies, but through the combined effect of all policies within the Core Strategy.

The Sustainable Development Strategy

- To promote healthy and sustainable communities and a high quality of life for Dacorum.*
- To mitigate and adapt to the impacts of climate change.*
- To promote social inclusion and diversity and reduce inequalities.*
- To enable convenient access between jobs, homes and facilities, minimise the impact of traffic and reduce the overall need to travel.
- To promote Hemel Hempstead as the focus of the Borough for homes, jobs and strategic services, reinforcing the role of the neighbourhoods in the town
- To conserve and enhance the function and character of the market towns, villages and countryside.
- To ensure the effective use of existing land and previously developed sites.
- To create safe and attractive environments through high quality design.

Strengthening Economic Prosperity

- To promote a vibrant and prosperous economy
 - to strengthen confidence in Hemel Hempstead’s role as a thriving sub-regional business centre and shopping hub;
 - to develop the Maylands Business Park as a leader of “green enterprise” and focus of the low carbon economy;
 - to maintain commercial enterprise and employment opportunities in the market towns and large villages; and
 - to support rural enterprise

Providing Homes and Community Services

- To provide a mix of new homes to meet the needs of the population.
- To provide for a full range of social, leisure and community facilities and services

Looking After the Environment

- To protect and enhance Dacorum's distinctive landscape character, open spaces, biological and geological diversity and historic environment.
- To promote the use of renewable resources, protect natural resources and reduce waste.
- To protect people and property from flooding.
- To minimise the effects of pollution on people and the environment

Implementation and Delivery

- To co-ordinate the delivery of new infrastructure with development.
- To ensure that all development contributes appropriately to local and strategic infrastructure requirements.

The vision and objectives are supported by core policies and place strategies, more detail on these is provided in Figure 2-1.

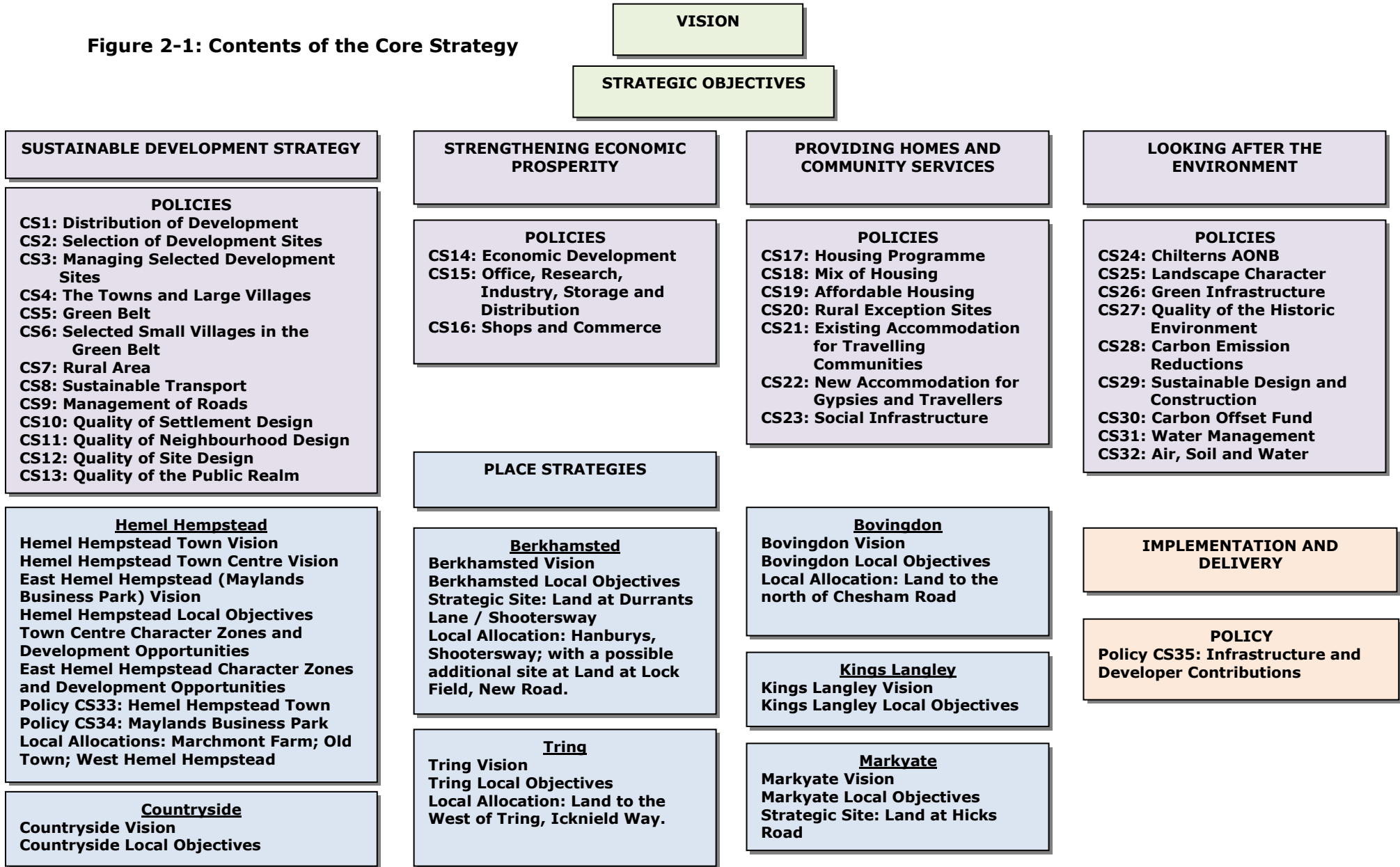
2.3 Options for Growth

Under the 'Providing Homes and Community Services' theme the Draft Core Strategy considers two levels of housing growth, a lower level which can be delivered without having to undertake any development on land in the Greenbelt and a higher level which would require the release of land in the Greenbelt for Local Allocations.

The sustainability appraisal has also provided an assessment of a third level of growth based around the accommodation of the natural level of growth predicted for the Borough.

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Figure 2-1: Contents of the Core Strategy



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3 Environmental and Sustainability Planning Context

3.1 Introduction

This section summarises the findings from the SA scoping stage. The scoping process seeks to ensure that the Sustainability Appraisal encompasses the key sustainability issues relevant to the Borough in the context of the development plan system. This section provides the environmental and sustainability context by:

- Examining the relationship of the Core Strategy with other policies, plans and programmes, to identify all relevant environmental protection objectives and to identify potential conflicts to be addressed within the plan-making process; and
- Assembling baseline data on the current and future state of the Borough for the environment and sustainability topics which may be affected by the Core Strategy.

3.2 Review of Policies, Plans and Programmes

3.2.1 Introduction

The SEA process requires authorities to review the requirements of policies, plans and programmes (PPPs) relevant to the content of the Plan to outline:

- The relationship of the Development Plan (Core Strategy) with other relevant plans and programmes; and
- The environmental protection objectives- established at international, community or Member State level- relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation.

To fulfil this requirement, a review of the relevant plans, policies and programmes (henceforth referred as PPP review) has been carried out to identify environmental objectives which may provide constraints or synergies with the plan being formulated. The PPP review has covered international conventions and EU policies through to local plans and strategies. A detailed PPP review was presented in the Scoping Report. Appendix A presents an updated PPP review taking into account changes subsequent to issue of the Scoping Report. A summary of the PPP review is presented in this chapter.

3.2.2 Summary of Review of other Plans and Programmes

Together, plans can be constraints (i.e. set formal limitations, policy contexts, requirements) or can be sources of useful background information as part of evidence gathering. These act together in a hierarchy where a sequence of precedence is established in a nesting, or tiering of plans. A review of other relevant policy documents is required to establish environmental, economic and social objectives that they contain, and it allows opportunities and synergies to be identified, as well as potential conflicts between aims, objectives or detailed policies. This review also highlighted sustainability drivers relevant to the DPD.

The Core Strategy has a direct or indirect relationship with number of national, regional and local policies, plans and programmes and is likely to support or interact with these policies. A detailed review of all relevant PPP documents was discussed in the Scoping Report. This review has been updated with additional policies adopted subsequent to issue of the Scoping Report and updated version is presented in Appendix A.

NB: This does not provide an exhaustive review. There are a variety of other studies that have been used to provide the evidence base for the development of the Core Strategy which have not been included in this review. A full list of technical studies completed can be found at: <http://www.dacorum.gov.uk/default.aspx?page=1884>.

At an international level various environmental policies such as Kyoto Protocol, EU Policies on greenhouse gas emissions, EU Second Climate Change Programme are for the Core Strategy to consider. Other supra-national conventions such as Ramsar Convention and the Habitats Directive should be considered in the DPD in relation to protection and enhancement of biodiversity. The Water Framework Directive is a major European policy that requires its Member states to achieve 'good ecological status' of all natural inland water bodies and protection/ enhancements to ground waters. As a result all Member states are required to prepare River Basin Management Plans. Although these plans are under production, the Core Strategy will need to consider implications of these plans.

The majority of the Planning Policy Guidance and Planning Policy Statements that guides national planning and development are relevant to the Core Strategy. These include those related to delivering sustainable development (PPS1), housing (PPS3), sustainable economic growth (PPS 4), biodiversity and geological conservation (PPS9), planning for sustainable waste management (PPS10), transport (PPG13), and renewable energy (PPS22).

This strategy has relation to number of regional and local plans and policies such as the Hertfordshire Biodiversity Action Plan, Hertfordshire Local Transport Plan 2, four Councils Level 1 Strategic Flood Risk Assessment, London Arc Employment Land Study, Hertfordshire Economic Development Strategy and various other plans and strategies developed by Dacorum Borough Council.

A list of the other plans, policies and programmes that have been included in the review is provided in Table 3-1.

Table 3-1: List of reviewed relevant policies, plans and programmes

International
Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat (1971)
Bonn Convention on the Conservation of Migratory Species of Wild Animals (1979)
Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979)
The Convention on Biological Diversity, Rio de Janeiro (1992)
Kyoto Protocol on Climate Change (1997)
The UN Millennium Declaration and Millennium Development Goals (2002)
World Summit on Sustainable Development - Earth Summit (2002)
European
EU Directive on the Conservation of Wild Birds (79/409/EEC)
EU Waste Framework Directive (2008/98/EC)
EU Nitrates Directive (91/676/EEC)
EU Habitats Directive (92/43/EEC)
EU Directive on Ambient Air Quality and Management (1996/62/EC)
European Spatial Development Perspective (1999)
EU Waste to Landfill Directive (99/31/EC)
The Water Framework Directive (2000/60/EC)
European Commission White Paper on the European Transport Policy (EC, 2001)
EU Sustainable Development Strategy (2006)
Åarhus Convention (2001)
EU Directive to promote Electricity from Renewable Energy (2001/77/EC)
Environment 2010: Our Future, Our Choice - EU Sixth Environment Action Programme (2002)
EU Directive for the Promotion of Bio-fuels for Transport (2003/30/EC)
The Johannesburg Declaration of Sustainable Development 2002
European Landscape Convention (2004)
Urban Waste Water Treatment Directive (91/271/EEC)
Convention for the Protection of the Architectural Heritage of Europe 1985
European Convention on the Protection of Archaeological Heritage 1992
Directive 2002/49/EC The Environmental Noise Directive
Health Strategy 2000 (EU Commission Communication COM(2000) 285 final)
Programme of Community action in the field of public health (2003-2008)
Second European Climate Change Programme 2005

National

Draft PPS: Planning for a Natural and Healthy Environment (2010)
PPS1 - Delivering Sustainable Development (2005)
SPPS1 - Planning Policy Statement: Planning and Climate Change - Supplement to Planning Policy Statement 1 (2007)
SPPS1- Planning Policy Statement: Supplement on Eco-towns- Supplement to PPS1 (2009)
PPG 2 – Green Belts (1995)
PPS 3 – Housing (2010)
Delivering Affordable Housing (Companion Statement to PPS3) (2006)
PPS 4 – Planning for Sustainable Economic Growth (2009)
PPS 5 – Planning for the Historic Environment (2005)
PPS 7 – Sustainable Development in Rural Areas (2004)
PPG 8 – Telecommunications (2001)
PPS 9 – Biodiversity and Geological Conservation (2005)
PPS 10 – Planning for Sustainable Waste Management (2005)
PPS 12 – Local Spatial Planning (2008)
PPG 13 – Transport (2001)
PPG 14 – Development on Unstable Land (1990)
PPG 17 – Planning for Open Space, Sport, and Recreation (2002)
PPS 22 – Renewable Energy (2004)
PPS 23 – Planning and Pollution Control (2004)
PPG 24 – Planning and Noise (1994)
PPS 25 – Development and Flood Risk (2010)
Wildlife and Countryside Act 1981 (as amended)
UK Biodiversity Action Plan - UK BAP (1994)
A Strategy for England's Trees, Woods and Forests (2007)
UK Air Quality Strategy (2007)
Countryside and Rights of Way Act – CRoW (2000)
Government Urban White Paper: Our Towns, Our Cities, the Future. Delivering an urban renaissance (2000)
UK Waste Strategy (2007)
Government Rural White Paper: Our Countryside, the Future – A Deal for Rural England (2000)
Climate Change: The UK Programme (2006)
Climate Change Act 2008
Planning for a Sustainable Future: White Paper 2007
The Historic Environment: A Force for Our Future (2001)
UK Fuel Poverty Strategy (2001)
'Working with the Grain of Nature': A Biodiversity Strategy for England (2002)
Our Energy Future - Creating a Low Carbon Economy' - UK white paper on energy (2003)
Towards a Sustainable Transport System: Supporting Economic Growth in a Low Carbon Worlds (DfT, 2007)
Delivering a Sustainable Transport System (DfT, 2008)
UK Climate Change Programme Review: Consultation (2004)
England Rural Strategy (2004)
Choosing Health: Making Healthier Choices Easier - Health White Paper (2004)
Securing the Future – UK Government Sustainable Development Strategy (2005)
Good Practice Guide on Planning for Tourism (2006)
Sustainable Communities: Building for the Future - Communities Plan (2003)
Sustainable Communities: People, Places and Prosperity (ODPM 2005)
Water Act 2003
Water for People and the Environment: Water Resources Strategy for England and Wales (2009)
Heritage Protection for the 21st Century: White Paper (DCMS, 2007)
Homes for the Future: More Affordable, More Sustainable – Housing Green Paper (CLG, July 2007)
The First Soil Action Plan for England, 2004-2006 (DEFRA, 2004)
Natural Environment and Rural Communities (NERC) Act (2006)

Regional – East of England

Sustainable Development Framework for the East of England (2001)
Our Environment, Our Future – The Regional Environmental Strategy for the East of England (2003)
Regional Social Strategy: A strategy to achieve a fair and inclusive society in the East of England (launched in May 2004)
A Shared Vision: The regional economic strategy of the East of England (formally released on 1 December 2004)

<p>The London Plan (2004) Creating Sustainable Communities in the East of England (2005) Towns and Cities – Strategy and Action Plan: Urban Renaissance in the East of England (2003) Chilterns AONB Management Strategy: The Framework for Action 2008-2013 River Basin Management Plan: Thames River Basin District (2009) The Colne Catchment Abstraction Management Strategy (2007) Thames Region Catchment Flood Management Plan (CFMP) (2007) The East of England Regional Woodland Strategy – ‘Woodland for Life’ (2003)</p>
<p>County - Hertfordshire</p> <p>Hertfordshire Structure Plan 1991-2011 A 50 Year Vision for the Wildlife and Natural Habitats of Hertfordshire (1998) (revised 2006) Hertfordshire Waste Local Plan 1995-2005 (1999) Hertfordshire Economic Development Strategy 2009-2021 The Hertfordshire Environmental Strategy (2001) Hertfordshire Minerals Local Plan Review 2002-2016 Rural Hertfordshire – an agenda for action (2001) Enjoy! A Cultural Strategy for Hertfordshire (2002) Hertfordshire Town Renaissance Campaign Hertfordshire Waste Strategy 2002-2024 Hertfordshire Sustainability Guide (2003) Hertfordshire Minerals and Waste Development Framework Waste Core Strategy & Waste Development Policies Issues and Preferred Options 2 (2009) Hertfordshire Local Transport Plan (LTP2) 2006/07 – 2010/11 London Arc Employment Land Study, 2009 Level 1 Strategic Flood Risk Assessment: Dacorum, St Albans, Three Rivers and Watford (2007) Veolia Water Central Water Resources Management Plan (2010) Hertfordshire Sustainable Communities Strategy – Hertfordshire 2021: A Brighter Future</p>
<p>Local Authority – Dacorum Borough</p> <p>Dacorum Borough Local Plan 1991-2011 (adopted April 2004) Dacorum’s Community Strategy: Towards 2021 Dacorum Housing Strategy and HRA Business Plan 2004-07 Dacorum Borough Nature Conservation Strategy (1999) Urban Capacity Study (2005) South West Hertfordshire Employment Space Study 2005 Planning for Gypsy and Traveller Sites (2005) Dacorum BC Community Safety Strategy (2005-2008) Dacorum Borough Local Agenda 21 Strategy (2002 – but update online regularly) Hemel Hempstead Civic Zone –Development Brief (2005) Water Cycle Study: Scoping Study 2010 Hertfordshire Renewable and Low Carbon Energy Study Strategic Infrastructure Study (Dacorum Borough Council, June 2010) Dacorum Corporate Environmental Policy (2009) Dacorum Urban Nature Conservation Study (2006) Level 2 Strategic Flood Risk Assessment: Berkhamsted and Hemel Hempstead (2008)</p>

3.3 Baseline Data

A key step in the SA process is establishing the current state of the environment and its likely evolution in the future without implementation of any plan. This process assists in the identification of sustainability and environmental issues/opportunities in the Borough. It is also important to consider the implications of the Core Strategy in its wider context. Baseline data is required to establish the present state of the Borough and its surrounding area and will be used subsequently for comparative purposes when monitoring and evaluating the LDF.

A practical approach is generally taken to data collection bearing in mind data availability and trend analysis, following which the actual data and gaps in information to consider in the future are reported at the scoping stage. This reporting also takes into account uncertainties in the data.

The Scoping Report, issued in February 2006 reported baseline information under environmental, social and economic themes. The data was organised under the following headings – Air Quality, Biodiversity, Climatic Factors, Cultural Heritage, Landscape, Material Assets, Waste, Land use, Soil, Water, Flood risk, Social factor, Noise, Population, Housing, Crime, Accessibility, Social deprivation, Recreation, Sports and Leisure, Health, Education, Economic activity, Employment, Economic footprint, Enterprise and Innovation.

The baseline data provides an evidence base for identifying sustainability issues in Dacorum, as well as a mechanism for identifying alternative ways of dealing with them. The information has helped the development of the SA Framework, and will provide a basis for predicting and monitoring the effects of the Plan. In order to assess how the Core Strategy will contribute to sustainable development, it is essential to understand the present economic, environmental and social baseline of the Borough, and to predict how they may progress without implementation of the Plan. Prediction of future trends can be highly uncertain but key trends identified from the available baseline data, and therefore potential sustainability issues were identified and discussed in the Scoping Report. Key issues and opportunities are discussed in Chapter 4. The Scoping Report is available for reference from the Dacorum website at:

<http://www.dacorum.gov.uk/default.aspx?page=3534>

Baseline data collection is a continuous process that informs SA production and the Scoping Report information produced in February 2006 has been updated based on new information having become available. Updated information on the PPP review and on the baseline is presented in Appendices A and B respectively.

3.4 Evolution of the baseline without the plan

The SEA regulations require that information is provided on "...the relevant aspects of the current state of the environment and the *likely evolution thereof without implementation of the plan*". It is recognised that the future baseline or the 'business as usual' scenario is difficult to describe, as trend data is often not available. However where possible the trends in the future baseline have been described for each of the SA/SEA topic areas in the baseline review (Appendix B).

In forecasting the 'business as usual' scenario it is necessary to determine what this means and what assumptions the scenario has been based on. Within this SA the business as usual scenario has been taken to mean a continuation of the current Local Plan.

4 Environmental and Sustainability Issues and SA/SEA Framework

4.1 Identifying Environmental and Sustainability Issues

The review of plans and programmes affecting the Borough, and the collation of the baseline data informed the identification of a series of environmental problems or issues that could be addressed by, or affect the strategies and measures developed in the DPDs. Such issues, problems and opportunities have been confirmed through:

- Review of the baseline data;
- Tensions/ inconsistencies with other plans, programmes and sustainability objectives;
- Scoping Workshop held in February 2006;
- Discussions with the Dacorum Borough Council Officers; and
- Response to the Scoping Report consultation.

The sustainability issues were identified at the scoping stage, and have since been revised in light of updated baseline data. Whilst a detailed note of the issues and opportunities can be found in the Scoping Report, Table 4-1 presents a summary of key sustainability issues and inter-relationships between the issues, for example, between biodiversity (environment) and health (social) are discussed to provide an integrated understanding of the sustainability issues.

Table 4-1: Issues and opportunities in Dacorum

SEA Objective	Key Issues	Opportunities	Interrelationships
Air	<p>Whilst overall levels of pollutants have decreased across the Borough there are some areas where annual mean nitrogen dioxide concentrations continue to exceed the relevant Air Quality Objectives. As a result Air Quality Management Areas are to be designated in 2010 at Lawn Lane, Hemel Hempstead; London Road, Apsley; and High Street, Northchurch.</p>	<p>Ensure potentially polluting processes incorporate pollution minimisation measures. Promote the development of Green Travel Plans. Improve cycle and pedestrian routes and links. Promote low emission vehicles.</p>	<p>Air quality influences human health which affects quality of life and also economic activity. Local residents and businesses experience air quality at the local level, which affects health and amenity.</p>
Biodiversity	<p>Dacorum falls within English Nature’s natural areas “Chilterns”, and “West Anglian Plain”.</p> <p>Dacorum contains one Special Area of Conservation (SAC) under the EC Habitats Directive: Chilterns Beechwoods</p> <p>8 Sites of Special Scientific Interest (SSSIs) covering 635 hectares can be found in Dacorum. The conditions of the SSSIs are above national target levels.</p> <p>There are three Local Nature Reserves in Dacorum: Howe Grove Wood (8 ha); Long Deans and, Shrubhill Common (11 ha).</p>	<p>Create new, and improve existing habitats, Green Infrastructure.</p> <p>Compensation for features lost to development where loss is completely unavoidable.</p> <p>Protection of existing networks of natural habitats including buffer areas, migration routes, stepping stones and landscape features of major importance for wildlife.</p> <p>Restoration of existing habitats and landscape features which could potentially be of major importance for wildlife.</p> <p>Linking and connecting isolated and fragmented habitats, important species populations and landscape features through creation of wildlife corridor (greenway) networks.</p> <p>LDF to promote the use of management agreements for designated sites, where this can be linked to development.</p>	<p>A healthy natural environment improves quality of life. Provides economic benefits through attracting inward investment and increased revenue through tourism.</p> <p>The diversity of habitats and species enriches people’s lives.</p> <p>Economic growth if undertaken unsustainably could adversely impact upon these assets and housing.</p>

SEA Objective	Key Issues	Opportunities	Interrelationships
Climatic Factors	<p>Carbon emissions per capita for Dacorum are above the regional average but below the national average.</p> <p>Domestic energy efficiency improved by 17.9% between 1/4/96 and 31/2/04.</p>	<p>Ensure development proposals do not exacerbate flooding elsewhere in catchment by adopting the sequential approach to site selection advocated in PPG25.</p> <p>Ensure consultation with the Environment Agency/Local Planning Authority.</p> <p>Sustainable Urban Drainage – porous surfaces, greenspace, wetlands, flood storage areas, urban forestry.</p> <p>Opportunity to decrease greenhouse gas emissions through reduced reliance on the private car.</p>	<p>Climate change is likely to affect water resources (supply and demand), alter habitats, affect air quality and public health and increase flood risk. These could all adversely impact upon the borough's economy.</p> <p>Greenhouse gas emissions could lead to significant climate changes which could have significant implications for other aspects of quality of life.</p>
Cultural heritage	<p>Development pressures and changes in agricultural policy are the two major challenges for the East of England's historic environment.</p> <p>In Dacorum there are:</p> <p>32 scheduled monuments</p> <p>905 listed buildings</p> <p>25 Conservation Areas;</p> <p>One building at risk: Great Barn at Castle Hill Farm, Castle Hill; and</p> <p>Four registered parks and gardens: Markyatecell Park; Ashridge; Water Gardens, Hemel Hempstead; and Tring Park.</p>	<p>Recognise the importance of cultural heritage and archaeological features and the importance of regenerating and re-using important buildings, particularly those listed as 'buildings at risk'.</p> <p>Be proactive in preparing development briefs to renew, restore and redevelop neglected and deteriorating sites of historic character.</p> <p>Ensure there are strong and robust design standards for new development.</p> <p>Ensure that new and existing developments have regard to settlement patterns, the local vernacular style and incorporate local materials.</p> <p>Ensure that the public realm is effectively designed using quality materials that maintain or add to the character/distinctiveness of an area.</p> <p>Recognise the importance of archaeological features and advocate a programme of archaeological investigation prior to initial earthworks.</p> <p>Retain features of historic landscape significance, where possible.</p>	<p>Cultural heritage contributes to the overall diversity and value of the landscape.</p> <p>It also provides economic benefits and is a source of enjoyment and entertainment for the population.</p>

SEA Objective	Key Issues	Opportunities	Interrelationships
Landscape & Townscape	<p>Light pollution is rapidly increasing and tranquillity is rapidly decreasing in the East of England.</p> <p>Increase in light pollution.</p> <p>Dacorum falls into two Landscape Character Areas, "Chilterns" and "Bedfordshire and Cambridgeshire Claylands".</p> <p>Parts of Dacorum fall within the Chilterns AONB.</p>	<p>Recognise value of all landscapes, not just designated sites.</p> <p>Monitor light pollution levels. New lighting should be selected which minimises light pollution.</p> <p>Ensure landscape proposals for development schemes reflect local landscape character.</p> <p>Ensure that the character, diversity and local distinctiveness of all the landscapes of the borough are maintained, enhanced or restored.</p> <p>Ensure that access to landscape character areas is socially inclusive.</p>	<p>An attractive landscape improves quality of life which in turn could contribute to increase inward investment. Green infrastructure provides health and wellbeing benefits.</p> <p>Woodland provides an important role in carbon sequestration.</p>
Material Assets	<p>The percentage of household waste composted and recycled is increasing, and the amount of waste collected per head is also now decreasing.</p> <p>The percentage of houses built on previously developed land is high. However, previously developed land is a finite resource and might not be as readily available in the future, thus leading to greater pressure to build on greenfield sites.</p>	<p>Support a reduction in the amount of waste deposited in landfill.</p> <p>Support alternative methods of waste management, e.g. minimisation and recycling by incorporating facilities within development schemes.</p> <p>Encourage re-use and recycling of construction waste in development schemes through the use of planning conditions.</p> <p>Promote development on previously developed land and maximise the efficient use of land.</p>	<p>Material assets include resources such as land, building materials and other resources which are non-renewable. The topic is concerned with the efficient use of resources, including re-use of brownfield sites and sustainable waste management.</p> <p>The quality of the material assets in the borough contributes to overall quality of life and can impact upon the region's economy.</p>
Soil	<p>Southwest Hertfordshire's soils are mainly classified as grade 3 agricultural land, with some graded 2. A significant proportion is covered by urban areas.</p> <p>Dacorum contains mostly slightly acid loamy and clayey soils with impeded drainage.</p>	<p>Protect best and most versatile land.</p> <p>Promote good soil handling practices.</p>	<p>Soil resources are key to sustaining the agricultural economy.</p>
Water	<p>There are some issues with river water quality in Dacorum.</p>	<p>Recognise and implement Environment Agency's surface water protection policies.</p>	<p>Climate change is resulting in more extreme weather</p>

SEA Objective	Key Issues	Opportunities	Interrelationships
	<p>The River Bulborne: overall status is moderate (ecological status is moderate, chemical status is good).</p> <p>The River Gade: overall status is bad (ecological status is moderate, chemical status is fail).</p> <p>Over abstraction of water resources is an issue in the region. The Chilterns Chalk Streams are particularly susceptible to over abstraction.</p> <p>Water usage by households using water meters is decreasing whilst non-metered households continue to use higher quantities of water per capita.</p> <p>Some areas of Dacorum are at risk from flooding.</p> <p>The Water Cycle Scoping Study (April 2010) indicates that in relation to a housing growth level of 9,000 homes (2010 – 2031), for potable water supply; waste water and sewerage network capacity; flood risk; and the water environment, the only major constraints are those related to the Maple Lodge waste water treatment works which serve Hemel Hempstead and Kings Langley.</p>	<p>Consider overall siting of development schemes in order to minimise potential effects on water quality.</p> <p>Encourage the use of Sustainable Drainage Systems in new developments.</p> <p>Ensure efficient use of water resources in development schemes, this includes the use of recycled water.</p> <p>New developments should incorporate rainwater re-use.</p> <p>Ensure new polluting processes are located in areas where groundwater is not vulnerable.</p>	<p>conditions and will heighten flood risk and demands on water resources.</p> <p>Negative synergy likely for flora and fauna when water bodies with low water flow combined with poor quality water</p>
Population & Human Health	<p>Dacorum’s population was estimated at 138,000 in mid 2003. This saw an increase from the previous year which is forecast to continue at least until 2009.</p> <p>An ageing population means that there are fewer economically active people to support an increasing number of people coming up to retirement age.</p> <p>The health of people in Dacorum is generally better than the average for England. Deprivation levels are low and life expectancy for both men and women is longer than the England average.</p> <p>However there are inequalities within Dacorum. For example life expectancy for men living in the least deprived areas is over 6 years longer than for men living in the most deprived areas.</p> <p>Whilst some GP surgeries Hemel Hempstead are more crowded than the Hertfordshire average, across Dacorum as a whole there is considerable capacity within existing</p>	<p>Ensure adequate housing, facilities and infrastructure whilst protecting and enhancing the local environment.</p> <p>Promote the dual use of facilities, e.g. post office incorporated in community hall etc.</p> <p>Invest in sustainable transport infrastructure to support expansion. Encourage reused and recycled demolition waste in development.</p> <p>Encourage mixed-use developments.</p> <p>Use planning obligations to help secure an appropriate range of facilities.</p> <p>Encourage healthy forms of travel and exercise, e.g. walking/cycling and access to leisure and recreational facilities.</p>	<p>Benefits of improved human health include employment provision and contribution to the local economy, training, research opportunities, reduced burden on social services and public finances.</p>

SEA Objective	Key Issues	Opportunities	Interrelationships
	<p>practices. However an assessment of future new demand associated with growth in Dacorum indicates that new surgeries will be required to accommodate growth. A large proportion of this demand will be at Hemel Hempstead.</p> <p>More than 1 child in 12 in Reception year is classified as obese. The level of children being physically active in school is worse than the England average. More than 1 adult in 5 is obese.</p> <p>The overall number of noise complaints received by councils in Hertfordshire rose in 2008/09 with domestic noise being the largest source of complaint.</p>		
Housing	<p>At the start of 2003/04 6% of dwellings in Dacorum were unfit for dwelling (well below regional average of 27%). Dacorum has a higher proportion of local authority housing stock than most neighbouring local authorities.</p> <p>The price of housing compared to earnings is an issue in all four local authorities with the ratios having increased steadily from 2000 through to 2008, although levels did fall back in 2009.</p> <p>In Dacorum there was a downward trend in the proportion of affordable housing completions between 2002/3 and 2004/5.</p> <p>Additional growth is likely to increase the pressure on affordable housing in the borough.</p>	<p>Ensure provision of a range of housing types to satisfy demand including affordable housing and mixed use developments and a range of housing types of varying sizes.</p> <p>Provision of affordable housing in accessible locations.</p> <p>Ensure appropriate housing provision for the elderly, e.g. through Life-long homes and appropriate forms of affordable housing.</p> <p>Ensure that such housing is located near to the necessary services and facilities and public transport.</p>	<p>Provision of housing to meet local needs is important both for the wellbeing of communities and also for the local economy.</p>
Social Factors	<p>Crime continued to fall in the county in 2008/09 and Hertfordshire ended the year at its lowest level since 2002 making the county one of the safest in England.</p> <p>In Dacorum 61.9% of local authority buildings were classified as suitable for and accessible by disabled people, compared with an average of 47.1% in the region and 43.8% in England.</p> <p>Dacorum ranks 288/354 in terms of deprivation compared to other English local authorities (354 = least deprived). However there are pockets of deprivation in Dacorum, although there are no wards in the 25% most deprived in</p>	<p>Adopt 'planning out crime' design principles, e.g. encourage overlooking of space etc.</p> <p>Provision of a range of employment opportunities in accessible locations.</p> <p>Encourage the provision of convenience stores that provide fresh produce in accessible locations.</p> <p>Consider using voluntary agreements in relation to local recruitment and training.</p> <p>Use planning obligations to secure improvements</p>	<p>Poor health and well-being will adversely impact upon economic growth in the borough.</p>

SEA Objective	Key Issues	Opportunities	Interrelationships
	<p>England.</p> <p>The proportion of all 18-24 yr olds in full time education or employment as of January 2001 in Dacorum was 88.3%.</p> <p>The forecast demand / supply gap (2012/13) for primary schools in Hertfordshire shows that Hemel Hempstead and Berkhamsted are areas of potential deficit. Overall there is 14% spare capacity in the Borough's secondary schools. However planned housing growth in the Borough will require expanded and new schools to be provided.</p>	<p>to public transport.</p> <p>Provide and maintain safe and available infrastructure for healthy pursuits – cycleways, dedicated walkways.</p> <p>Require green travel plans.</p> <p>Ensure provision of a range of education facilities. Planning obligations used to enhance existing educational facilities</p> <p>Encourage working from home by providing the necessary infrastructure.</p> <p>Need to provide a range of employment opportunities in different sectors.</p>	
Economic Factors	<p>In Hertfordshire in 2008 estimated Gross Value Added shrunk by 0.1%, a slightly worse performance than that of the East of England, where it grew by 0.2%, and of the UK, where the growth was 0.9%.</p> <p>Levels of unemployment have increased significantly since 2007.</p> <p>GVA growth in Dacorum is expected to exceed that of the rest of the county (with growth at 3.5% per annum as opposed to the 3% expected for the rest of Hertfordshire)</p> <p>A low proportion of employees in the Region receive job-related training.</p>	<p>Provide a range of employment sites, including ones that will be attractive to inward investment.</p> <p>Provide incubator units and units with shared facilities, e.g. reception and meeting facilities etc. LDF to identify suitable locations.</p> <p>Planning obligations used to enhance existing educational facilities</p> <p>Provide a range of employments sites that will be attractive to knowledge based industries</p> <p>Support employment opportunities in higher value activities, e.g. knowledge based industries.</p>	<p>Social considerations and quality of life will impact on employment opportunities and ability to attract inward investment.</p>

4.2 Environmental and Sustainability Objectives

Current guidance on SA/SEA of land use and spatial plans advocates the use of objectives in the appraisal process. This section provides an outline of the objectives, criteria and indicators, organised under a SA Framework that was developed during the Scoping Stage and used in subsequent stages to appraise the DPD. This framework includes broad sustainability objectives, criteria explaining the broader objective in a more localised manner and indicators.

The purpose of the framework for the SA/SEA, set out in Table 4-2, is to provide a way in which the effects of the plan can be described, analysed, and compared. This process involves considering the content of the Core Strategy against identified SA/SEA objectives.

A more detailed framework which links the objectives and criteria to potential indicators to use in monitoring is presented in Appendix C. The indicators that are selected for monitoring will be finalised later in the SA/SEA process and agreed upon adoption of the Core Strategy.

The sustainability objectives outlined in the Appraisal Framework have been arranged under SEA/SA topics. The topics that have been selected relate to the same topics listed in: Annex I of Directive 2001/42/EC of the European Parliament on 'the assessment of the effects of certain plans and programmes' (the SEA Directive); and Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents, ODPM, November 2005.

4.2.1 Sustainability Objectives (Column 1)

As this SA is a joint commission by Three Rivers District Council, Dacorum Borough Council, St Albans District Council and Watford Borough Council, a sub-regional perspective (South-West Hertfordshire) was adopted for this study. Therefore the SA objectives have focussed on those issues, which are directly relevant to South West Hertfordshire and the scope of the DPDs. They are based on the sustainability objectives presented in the "Sustainable Development Framework for the East of England"³.

4.2.2 Criteria (Column 2)

Following on from the identification of objectives, a range of associated criteria and indicators were identified to provide further clarity in respect of future development directions as well as to assist in the appraisal process. The criteria were based on the key sustainability objectives outlined in the "Sustainable Development Framework for the East of England". They focus specifically on the items which are of direct relevance to the DPDs.

³ A Sustainable Development Framework For The East of England, The East of England Regional Assembly, October 2001

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Table 4-2: Core Strategy SA Framework

Objective	Criteria
Biodiversity	
1. To protect, maintain and enhance biodiversity and geodiversity at all levels, including the maintenance and enhancement of Biodiversity Action Plan habitats and species in line with local targets	To protect, maintain and enhance designated wildlife and geological sites (international, national and local) and protected species to achieve favourable condition
	To restore characteristic habitats and species, to achieve BAP targets
	To support farming and countryside practices that enhance wider biodiversity and landscape quality by economically and socially valuable activities (e.g. grazing, coppicing, nature reserves) [not applicable to urban boroughs, such as Watford]
	To manage woodlands and other habitats of value for biodiversity in a sustainable manner and protect them against conversion to other uses
	To recognise the social/environmental value and increase access to woodlands, wildlife & geological sites and green spaces particularly near/in urban areas
Water	
2. To protect, maintain and enhance water resources (including water quality and quantity) while taking into account the impacts of climate change	To raise awareness and encourage higher water efficiency and conservation by for instance promoting water reuse in new and existing developments
	To ensure water consumption does not exceed levels which can be supported by natural processes and storage systems
	To improve chemical and biological quality and flow of rivers and encourage practices which reduce nitrate levels in groundwater
	To improve flow of rivers
	To reduce the number and severity of pollution incidents
3. Ensure that new developments avoid areas which are at risk from flooding and natural flood storage areas	To maintain or restore the integrity of water dependent wildlife sites in the area
	To avoid developments in areas being at risk from fluvial, sewer or groundwater flooding (for instance natural flood plains) while taking into account the impacts of climate change
	To ensure that developments, which are at risk from flooding or are likely to be at risk in future due to climate change, are sufficiently adapted
Soil	To promote properly maintained sustainable urban drainage systems to reduce flood risk and run off in areas outside Source Protection Zones 1 (SPZ)

Objective	Criteria
4. Minimise development of land with high quality soils and minimise the degradation/loss of soils due to new developments	To safeguard high quality soils, such as agricultural land grades 1, 2 and 3a) from development [Might not be applicable for urban boroughs, such as Watford]
	To limit contamination/degradation/loss of soils due to development
Climatic Factors	
5. Reduce the impacts of climate change, with a particular focus on reducing the consumption of fossil fuels and levels of CO ₂	To minimise greenhouse gas emissions (particularly CO ₂) for instance through more energy efficient design and reducing the need to travel
	To promote increased carbon sequestration e.g. through increases in woodland cover
	To adopt lifestyle changes which help to mitigate and adapt to climate change, such as promoting water and energy efficiency (through for instance higher levels of home insulation)
6. Ensure that developments are capable of withstanding the effects of climate change (adaptation to climate change)	To promote design measures which enable developments to withstand and accommodate the likely impacts and results of climate change (for instance through robust and weather resistant building structures)
Air Quality	
7. Achieve good air quality, especially in urban areas	To reduce the need to travel by car through planning settlement patterns and economic activity in a way that reduces dependence on the car and maintains access to work and essential services for non-car-owners
	To integrate land use and transport planning by for instance: <ul style="list-style-type: none"> ▪ Promoting Green Transport Plans, including car pools, car sharing as part of new developments ▪ Ensuring services and facilities are accessible by sustainable modes of transport
	To ensure that development proposals do not make existing air quality problems worse
	To address existing or potential air quality problems
Material Assets	
8. Maximise the use of previously developed land and buildings, and the efficient use of land	To concentrate new developments on previously developed land (PDL)
	To avoid use of Greenfield sites for development
	To maximise the efficient use of land and existing buildings by measures such as higher densities and mixed use developments
	To encourage the remediation of contaminated and derelict land and buildings
9. To use natural resources, both finite and renewable, as	To encourage maximum efficiency and appropriate use of materials, particularly from local and regional sources
	To require new developments to incorporate renewable, secondary, or sustainably sourced local materials in

Objective	Criteria
efficiently as possible, and re-use finite resources or recycled alternatives wherever possible	buildings and infrastructure
	To safeguard reserves of exploitable minerals from sterilisation by other developments
	To promote renewable energy sources as part of new or refurbished developments
	To increase recycling and composting rates and encourage easily accessible recycling systems as part of new developments
	To promote awareness regarding waste/recycling and renewable energy issues through education programmes in schools and the community
Cultural Heritage	
10. To identify, maintain and enhance the historic environment and cultural assets	To safeguard and enhance the historic environment and restore historic character where appropriate, based on sound historical evidence
	To promote local distinctiveness by maintaining and restoring historic buildings and areas, encouraging the re-use of valued buildings and thoughtful high quality design in housing and mixed use developments – to a density which respects the local context and townscape character, and includes enhancement of the public realm
	To promote public education, enjoyment and access of the built heritage and archaeology
Landscape & Townscape	
11. To conserve and enhance landscape and townscape character and encourage local distinctiveness	To protect and enhance landscape and townscape character
	To evaluate the sensitivity of the landscape to new/inappropriate developments and avoid inappropriate developments in these areas
	To protect 'dark skies' from light pollution, and promote low energy and less invasive lighting sources while considering the balance between safety and environmental impacts
	To minimise the visual impact of new developments
Population and Human Health	
12. To encourage healthier lifestyles and reduce adverse health impacts of new developments	To promote the health advantages of walking and cycling and community based activities
	To identify, protect and enhance open spaces, such as rivers and canals, parks and gardens, allotments and playing fields, and the links between them, for the benefit of people and wildlife
	To include specific design and amenity policies to minimise noise and odour pollution, particularly in residential areas
	To narrow the income gap between the poorest and wealthiest parts of the area and to reduce health differential

Objective	Criteria
13. To deliver more sustainable patterns of location of development	To reduce the need to travel through closer integration of housing, jobs and services
	To promote better and more sustainable access to health facilities
Social Factors	
14. Promote equity & address social exclusion by closing the gap between the poorest communities and the rest	To include measures which will improve everyone's access to high quality health, education, recreation, community facilities and public transport
	To ensure facilities and services are accessible by people with disabilities and minority groups
	To encourage people to access the learning and skills they need for high quality of life
	To ensure that the LDF does not discriminate on the basis of disability, ethnic minority, or gender.
15. Ensure that everyone has access to good quality housing that meets their needs	Promote a range housing types and tenure, including high quality affordable and key worker housing
16. Enhance community identity and participation	To recognise the value of the multi-cultural/faith diversity of the peoples in the region
	To improve the quality of life in urban areas by making them more attractive places in which to live and work, and to visit
	To encourage high quality design in new developments, including mixed uses, to create local identity and encourage a sense of community pride
17. Reduce both crime and fear of crime	To reduce all levels of crime with particular focus on violent, drug related, environmental and racially motivated crime
	To plan new developments to help reducing crime and fear of crime through thoughtful design of the physical environment, and by promoting well-used streets and public spaces
	To support government-sponsored crime/safety initiatives, maximising the use of all tools available to police, local authorities and other agencies to tackle anti-social behaviour
Economic Factors	
18. Achieve sustainable levels of prosperity and economic	To support an economy in the Authority which draws on the knowledge base, creativity and enterprise of its people.
	To promote and support economic diversity, small and medium sized enterprises and community-based enterprises

Objective	Criteria
growth	To support the economy with high quality infrastructure and a high quality environment
19. Achieve a more equitable sharing of the benefits of prosperity across all sectors of society and fairer access to services, focusing on deprived areas in the region	To encourage local provision of and access to jobs and services
	To improve the competitiveness of the rural economy [not applicable for urban boroughs, such as Watford]
20. Revitalise town centres to promote a return to sustainable urban living	To promote the role of local centres as centres for sustainable development providing services, housing and employment, drawing on the principles of urban renaissance
	To encourage well-designed mixed-use developments in the heart of urban areas, create viable and attractive town centres that have vitality and life, and discourage out-of-town developments

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4.3 Compatibility of SA/SEA Objectives

A compatibility assessment of the SA/SEA objectives was undertaken at the scoping stage in order to identify whether there were any incompatibilities or tensions between certain objectives. Where potential incompatibilities have been identified these have been taken in to account when undertaking the assessment process and consider appropriate mitigation measures or alternative approaches in the Core Strategy. Details of the compatibility analysis can be found in the Scoping Report.

4.3.1 *Inter-relationships between SA/SEA objectives*

During the SA/SEA assessment the SA/SEA objectives should not be considered in isolation as many inter-relationships exist that need to be taken into account. Some of these relationships are clear cut and easy to understand, for example reduced greenhouse gas emissions and improved air quality which would both result from transport modal shift to sustainable travel modes. Others however can be less obvious, but are equally important and need to be understood when assessing the Core Strategy. For example there are inter-relationships between climate change adaptation measures and improvement in human health, from improved safety associated with reducing the risk of properties flooding, through to reduced levels of stress and improved well-being resulting from improvements to energy efficiencies of homes.

Close inter-relationships exist between environmental topics such as air quality, water quality, soil and biodiversity, with improvements or degradation to one often resulting in a similar effect on the other related media/topics. For example increased air pollution can have adverse effects on soil, water quality, and biodiversity through acidification. These effects can then cause issues relating to landscape degradation.

4.4 Compatibility of SA/SEA and Core Strategy Objectives

A compatibility assessment of SA/SEA objectives with the Core Strategy objectives was originally undertaken at the scoping stage and this was reported in the Scoping Report. However since then the Strategic Objectives of the Core Strategy have been updated (see Section 2.2) and as a result a further compatibility assessment has been undertaken (Table 4-3).

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Table 4-3: Compatibility of SA/SEA and Core Strategy Objectives

			Core Strategy Objectives (Abridged)																
			1. Healthy community	2. Climate change	3. Social inclusion	4. Convenient access	5. Hemel focus	6. Towns/villages	7. Effective use of land	8. High quality design	9. Vibrant economy	10. Meet housing need	11. Community facilities	12. Environment	13. Resource use	14. Flood protection	15. Minimise pollution	16. Infrastructure delivery	17. Strategic needs
SA Objectives (Abridged)	1	Biodiversity	C	C	-	-	C	-	?	-	?	N	-	C	-	?	C	?	-
	2	Water quality and quantity	C	C	-	-	-	-	-	-	-	N	-	C	C	?	C	-	-
	3	Flood risk	C	C	-	-	C	-	-	-	-	?	-	-	C	-	-	-	-
	4	Soils	C	C	-	-	-	-	-	-	?	N	-	C	-	C	?	-	-
	5	CO ₂ emissions	C	C	-	C	C	-	-	-	N	N	-	-	-	-	-	-	-
	6	Climate change proof	C	C	-	-	-	-	-	-	-	-	-	-	C	-	-	-	-
	7	Air quality	C	C	-	C	-	-	-	-	N	N	-	-	-	C	-	-	-
	8	Use of brownfield land	C	-	-	-	-	-	C	-	?	-	-	-	C	-	-	-	-
	9	Resource efficiency	C	-	-	-	-	-	C	-	-	-	-	-	C	-	-	-	-
	10	Historic and cultural assets	C	-	-	-	-	C	-	C	?	?	C	C	-	C	C	?	-
	11	Landscape & townscape	C	-	-	-	C	C	-	C	?	?	-	C	-	-	-	?	-
	12	Health	C	C	C	C	-	-	-	C	C	C	C	C	-	C	C	-	C
	13	Sustainable locations	C	-	-	C	C	C	-	-	C	-	C	-	-	-	-	-	-
	14	Equity and social exclusion	C	-	C	C	-	C	-	C	C	C	C	-	-	-	-	-	C
	15	Good quality housing	C	-	-	-	-	-	-	-	C	-	-	-	-	-	-	-	-
	16	Community identity and participation	C	-	C	C	C	C	-	C	-	?	C	-	-	-	-	-	C
	17	Crime	C	-	C	-	-	-	-	C	-	-	C	-	-	-	-	-	-
	18	Sustainable prosperity and growth	C	-	-	-	-	-	-	-	C	C	-	-	-	C	-	C	C
	19	Fairer access to services	C	-	C	C	-	C	-	-	C	-	-	-	-	-	-	C	C
	20	Revitalise town centres	C	-	-	-	C	C	-	C	?	-	C	-	-	-	-	C	C

(N) Potentially incompatible **(C)** Compatible **(?)** Uncertain **(-)** No significant relationship

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The Compatibility Matrix indicates that generally, the Core Strategy objectives are compatible with the SA/SEA objectives. However the assessment indicates that there are some potential conflicts and some uncertainties over the compatibility between the SA/SEA and Core Strategy objectives. Where potential incompatibilities have been identified, the reasons for these are discussed below for each affected Core Strategy objective.

It should be recognised that whilst some incompatibilities have been identified for specific objectives, there are other objectives that will help to overcome these. For example where incompatibility has been identified between housing and biodiversity, the Core Strategy objective to "To protect and enhance ... biological diversity ..." will help to ensure that adverse effects are minimised.

Core Strategy Objective: "To ensure the effective use of existing land and previously developed sites"

This objective is potentially incompatible with the SA objective for biodiversity, as some brownfield sites can have a high biodiversity value.

Core Strategy Objective: "Promote a vibrant and prosperous economy"

This objective is incompatible with the SA objectives on greenhouse gas emissions and air quality as activities relating to the new employment sites, such as transport and travel, will result in increases in greenhouse gas emissions and other airborne emissions.

The aim also has uncertain compatibilities with a number of other SA objectives. For example, developing employment sites on greenfield land will have uncertain effects on biodiversity, soils, historic & cultural assets and landscape & townscape depending on the exact location and type of employment to be provided. The plan's aim to focus employment development at Maylands could see development on greenfield land, which is potentially incompatible with the SA objective on use of brownfield land.

There is also potential for incompatibility with revitalising town centres as the strategy aims to focus economic development in Maylands which is an out of town development.

Core Strategy Objective: "To provide a mix of new homes to meet the needs of the population"

This objective is potentially incompatible with a number of the SA objectives:

- The level of housing development required in the Borough will require development of greenfield land. Development of greenfield land is not compatible with biodiversity due to landtake, potential habitat fragmentation and urban pollution issues. Development on greenfield land would also result in soil sealing.
- Providing new homes in the Borough will put direct pressure on water resources which are already identified as 'over-abstracted'.
- Housing development will result in increases in greenhouse gas emissions from new housing and associated activities. It will also contribute to background emissions through an increase in the number of vehicles on the road thereby reducing air quality.

The objective also has uncertain compatibilities with a number of the SA objectives:

- Parts of the Borough lie within areas of flood risk and a number of the potential housing sites are within these zones.
- Housing development on greenfield sites is potentially incompatible with the SA objectives on historic & cultural assets, landscape & townscape and community identity & participation depending on the location and quality of the development.

Core Strategy Objective: "To protect people and property from flooding"

This objective is potentially incompatible with the biodiversity and water objectives, because if this objective is achieved through measures other than simply the location of

new development outside flood risk areas (e.g. through flood attenuation schemes) there could be adverse effects on local hydrology and any biodiversity associated with the water environment.

Core Strategy Objectives: “To co-ordinate the delivery of new infrastructure with development” and “To ensure that all development contributes appropriately to local and strategic infrastructure requirements”

Through the provision of local and strategic infrastructure to enable the successful delivery of new development there are potential incompatibilities with the SA objectives for biodiversity, soils, and historic & cultural assets and landscape & townscape as providing infrastructure, e.g. roads, utilities, services and community facilities, could lead to effects such as habitat fragmentation, soil sealing and adverse effects on the historic environment and landscapes, depending on the location and design of the infrastructure.

5 Core Strategy Issues and Options - 2006

5.1 Introduction

Dacorum Borough Council consulted members of the public, statutory authorities and other relevant stakeholders on the Core Strategy Emerging Issues (July 2005), the Core Strategy Issues and Options Report in May 2006 and the Supplemental Issues and Options (Growth at Hemel Hempstead) in November 2006.

The latter two consultations were accompanied by SA working notes, which documented results of the sustainability appraisal of the Initial Options and Supplementary Issues and Options papers.

5.2 Initial Issues and Options – May 2006

5.2.1 Assessment Approach

The assessment of this Issues and Options paper explored the likely effects of the various options against the Sustainability Appraisal (SA) objectives. The assessment used the assessment criteria as outlined in Figure 5-1. The effects were also forecast in terms of their:

- Permanence (permanent or temporary);
- Scale (local (within the Borough), regional (affecting local neighbouring authorities), national/international (affecting UK or a wider global impact)); and
- Timescale (in the short term (1-5 years), medium term (5-10 years) or long term (10+ years)).

Where appropriate the assessment also identified cumulative/synergistic effects, cross-boundary effects and interrelationships between the SA objectives. All of the SA Objectives have been afforded the same value in this assessment with no weighting of objectives being used.

Significance Assessment	Description
✓✓	Very sustainable - Option is likely to contribute significantly to the SA/SEA objective
✓	Sustainable - Option is likely to contribute in some way to the SA/SEA objective
?	Uncertain – It is uncertain how or if the Option impacts on the SA/SEA objective
-	Neutral – Option is unlikely to impact on the SA/SEA objective
x	Unsustainable – Option is likely to have minor adverse impacts on the SA/SEA objective
xx	Very unsustainable – Option is likely to have significant adverse impacts on the SA/SEA objective

Figure 5-1: Assessment Criteria

5.2.2 Assessment Results

The Initial Issues and Options consultation set out the overall vision for future development in the Borough and outlined the key issues under seven broad topics: Spatial Development Strategy, Housing, Employment, Retail, Transport and Infrastructure, Community Development and Landscape Management and Biodiversity.

Table 5-1 provides a summary of the assessment of each option against the SA objectives.

The full results of the appraisal can be found in the SA Working Note that accompanied the consultation. This can be accessed via the Dacorum Borough Council website at: <http://www.dacorum.gov.uk/default.aspx?page=6175>.

Table 5-1: Initial Issues and Options Summary of Assessment

SEA Objective	1. Biodiversity	2. Water Quality	3. Flood risk	4. Soils	5. CO2 emissions	6. Climate Change proof	7. Air Quality	8. Use of brownfield land	9. Resource Efficiency	10. Historic & Cultural assets	11. Landscape & Townscape	12. Health	13. Sustainable Development Patterns & 19. Accessibility	14. Equity & Social Exclusion	15. Good Quality Housing	16. Community Identity & Participation	17. Crime	18. Sustainable Prosperity & Growth	20. Revitalise town centres
Issue: 5.1, 5.2 and 7.2: Opportunity areas and Spatial Strategy																			
1 (Q25) Promote concentrated & compact development at Hemel Hempstead.	✓✓	xx	?	✓	✓✓	x	✓✓	✓✓	x	✓	?	✓	✓	✓	✓	✓	?	✓✓	✓✓
2 (Q24) Distribute development opportunities between three settlements- Hemel Hempstead, Berkhamsted and Tring.	✓	xx	?	?	✓	x	✓	?	x	✓	?	✓	✓	✓	✓	✓	?	✓✓	✓
3a) Protect site for Employment only	-	x	?	-	?	x	x	✓✓	x	-	?	x	✓	-	x	-	-	✓	✓
3b) Allow Mixed- land use development	-	x	?	-	✓	x	?	✓✓	x	-	?	x	✓	-	✓	✓	-	✓	✓
3c) Allow alternative land use, e.g., housing, on the site	-	x	?	-	?	x	x	✓✓	x	-	?	x	✓	-	✓	✓	-	x	✓
Issue 5.3 Protection of Greenspaces and Greenbelt																			
1) Limit Greenfield site consumption by maximising Urban Capacity of all settlements.	✓✓	✓	?	✓	✓✓	x	✓	✓✓	x	✓	✓✓	✓	✓✓	✓	-	✓	-	✓✓	✓
2) Maximise Urban Capacity and allow Greenfield site consumption.	✓	?	?	?	✓	x	✓	✓	x	✓	✓	✓	✓	✓	-	✓	-	✓	?
3) Seeks to utilise Greenfield sites prior to consideration of greenbelts.	x	?	?	x	?	x	✓	x	x	-	x	✓	x	✓	-	x	-	✓	x
Issue 5.4: Protection of countryside Open Spaces																			
4) Strategy considers limited utilisation of land, beyond the green belt, in the open countryside to meet local demands.	x	x	?	?	xx	x	x	x	x	-	xx	x	x	✓	-	x	-	x	-
Issue 10.5 Protection of Open Green spaces																			
(Q52) : Retain & protect open space from all developments	✓✓	✓	?	✓	-	x	✓✓	-	x	-	✓	✓✓	-	✓	-	✓✓	✓	✓✓	✓✓
2) (Q53): Can some open land be lost to improve the quality of other open space?	✓	-	?	?	-	x	?	-	x	-	✓	✓	-	✓	-	✓✓	✓	✓✓	✓
Issue 6.1 and 6.2: Housing Growth Scenarios																			
1-A) Adopting RSS 14 recommendation of 6300 dwellings	✓✓	?	?	x	✓	x	✓✓	✓	x	✓	?	✓	?	✓	x	-	?	✓	✓

SEA Objective	1. Biodiversity	2. Water Quality	3. Flood risk	4. Soils	5. CO2 emissions	6. Climate Change proof	7. Air Quality	8. Use of brownfield land	9. Resource Efficiency	10. Historic & Cultural assets	11. Landscape & Townscape	12. Health	13. Sustainable Development Patterns & 19. Accessibility	14. Equity & Social Exclusion	15. Good Quality Housing	16. Community Identity & Participation	17. Crime	18. Sustainable Prosperity & Growth	20. Revitalise town centres
1- B) Council's estimate of housing need- 7100 dwellings	✓	?	?	x	✓	x	✓	✓	x	✓	?	✓	?	✓	✓	✓	?	✓	✓
1-C) RSS 14 original proposal of 8,200 dwellings	x	?	?	x	-	x	x	x	x	x	?	?	?	✓	✓	✓	?	✓	✓
1-D) 10,000 dwellings, suggested by RSS 14 objectors.	x	?	?	x	-	x	x	x	x	x	?	?	?	✓✓	✓	✓	?	✓	✓
Issue 6.3: Housing density and location																			
A (Q11): Focusing development within Hemel Hempstead	✓✓	?	?	✓	✓	x	✓✓	✓✓	x	✓	?	✓	✓	✓	-	✓	?	✓	✓✓
B (Q12): Distribute housing requirement, beyond Hemel Hempstead.	?	?	?	?	?	x	x	?	x	✓	?	-	x	x	-	x	?	x	✓✓
3-C (Q13): Options for housing development beyond 7100 dwellings: i) Increase density at Hemel Hempstead town centre	✓✓	?	?	-	✓	x	✓	✓	x	✓	x	✓	✓	✓	✓	✓	?	✓	✓✓
ii) Extend to Greenfield sites within Hemel Hempstead	x	-	?	x	-	x	x	x	x	✓	x	-	✓	x	-	x	?	✓	?
(iii):Extend to Greenfield sites around other existing settlements	x	-	?	x	?	x	x	xx	x	✓	x	-	✓	x	-	x	?	x	-
3-D (Q14): Location for Greenfield extension, if necessary i) Around Hemel Hempstead	x	x	?	x	✓	x	✓	x	x	-	xx	✓	✓	x	-	✓	-	✓	✓
(ii) Around Berkhamsted	x	x	?	x	✓	x	✓	x	x	-	xx	✓	✓	x	-	x	-	✓	✓
(iii) Around Tring	x	x	?	x	✓	x	✓	x	x	-	xx	✓	✓	x	-	x	-	✓	✓
(iv): Settlements outside Greenbelt	x	x	?	x	x	x	x	x	x	-	xx	x	x	x	-	x	-	x	✓
(v): Distributed between different settlements	x	x	?	x	x	x	x	x	x	-	xx	x	x	x	-	x	-	x	✓
4) (Q13,16) Increase housing densities,50+ dwellings/ha, in all res neighbourhoods	✓✓	?	?	-	✓	x	✓	✓✓	x	-	?	-	✓	✓	?	?	?	✓	✓
4-B Settlement considered for densification i) Hemel Hempstead	✓✓	?	?	-	✓	x	✓	✓✓	x	-	?	-	✓	✓	?	?	?	✓	✓
(ii):Berkhamsted	✓✓	?	?	-	✓	x	✓	✓✓	x	-	?	-	✓	✓	?	?	?	✓	✓
(iii):Tring	✓✓	?	?	-	✓	x	✓	✓✓	x	-	?	-	✓	✓	?	?	?	✓	✓
Issue 6.6 Locating Affordable Housing																			
3 Options on affordable housing location are proposed (Question 21): 1. On Large sites	?	?	?	?	?	x	?	?	x	-	?	?	?	?	?	?	-	✓	✓

SEA Objective	1. Biodiversity	2. Water Quality	3. Flood risk	4. Soils	5. CO2 emissions	6. Climate Change proof	7. Air Quality	8. Use of brownfield land	9. Resource Efficiency	10. Historic & Cultural assets	11. Landscape & Townscape	12. Health	13. Sustainable Development Patterns & 19. Accessibility	14. Equity & Social Exclusion	15. Good Quality Housing	16. Community Identity & Participation	17. Crime	18. Sustainable Prosperity & Growth	20. Revitalise town centres
2. On Greenfield Sites	?	-	?	x	?	x	?	x	x	-	?	?	?	x	?	x	-	✓	✓
3. On sites with high accessibility.	?	✓	?	?	?	x	✓	?	x	-	?	✓	?	?	✓	?	-	✓	✓
Issue 8.1: Location of new retail space																			
1 (Question 29, Question 32): Adopt sequential approach to locate new retail spaces	✓✓	?	?	?	✓✓	x	✓	✓✓	x	-	?	✓	✓✓	✓	✓	-	-	✓	✓
2 (Question 30): Create opportunity for local retail shopping in business area	-	-	?	-	✓	x	x	✓	x	-	?	x	x	✓	-	-	-	✓	-
Issue 8.4: Landuse pattern at the Town Centre																			
3-1) Allow non-shop use in office use areas	-	-	?	-	?	x	?	✓	x	-	?	✓	✓	✓	-	-	-	✓	?
3-2) Encourage mixed land use	-	-	?	-	✓	x	✓	✓	x	-	?	✓	✓	✓	-	-	-	✓	?
3-3) Retain and protect office use in town centres.	-	-	?	-	?	x	✓	✓	x	-	?	✓	✓	✓	-	-	-	✓	✓
Issue 8.5: Landuse pattern at the Local Centres																			
4-1) Retain and protect shopping facilities in local centres	-	-	?	-	✓	x	✓	✓	x	?	?	✓	✓	-	-	-	-	✓	✓
4-2) Support a more flexible approach to non-shop uses in local centres	-	-	?	-	✓	x	✓	✓	x	?	?	✓	✓	-	-	-	-	✓	✓
Issue 9.1: Traffic and Transport																			
1) Develop town and local centres	✓✓	✓	?	-	✓	x	✓	-	x	✓	?	✓✓	✓✓	✓✓	-	✓	-	✓	✓✓
2) Provide and improve public transport	✓✓	✓	✓	-	✓✓	x	✓	-	x	✓	✓	✓✓	✓✓	✓✓	-	✓	-	✓	✓
3) Encourage cyclist and pedestrian access to town and local centres	✓✓	✓	✓	-	✓✓	x	✓✓	-	x	✓	✓	✓✓	✓✓	✓✓	-	✓	-	✓	✓✓
4) Improve road infrastructure, without attracting more traffic	x	xx	xx	?	xx	x	?	-	x	?	x	xx	?	x	-	-	-	✓	xx
5) Design Green Traffic plans for local and major traffic generators.	✓✓	✓	✓	-	✓✓	x	✓✓	-	x	✓	✓	✓✓	✓✓	✓✓	-	✓	-	✓	✓
Issue 9.3: Accessibility																			
1) High density development near appropriate passenger transport interchange	✓	✓	✓	-	✓✓	x	✓✓	?	x	-	?	-	✓	✓✓	✓	?	?	✓	?

SEA Objective	1. Biodiversity	2. Water Quality	3. Flood risk	4. Soils	5. CO2 emissions	6. Climate Change proof	7. Air Quality	8. Use of brownfield land	9. Resource Efficiency	10. Historic & Cultural assets	11. Landscape & Townscape	12. Health	13. Sustainable Development Patterns & 19. Accessibility	14. Equity & Social Exclusion	15. Good Quality Housing	16. Community Identity & Participation	17. Crime	18. Sustainable Prosperity & Growth	20. Revitalise town centres
2) Low cost, affordable housing close to basic amenities	-	✓	✓	-	✓✓	x	✓✓	?	x	-	-	-	✓	✓✓	✓	✓	?	✓	?
3) Encourage live/work units	-	✓	✓	-	✓✓	x	✓✓	-	x	-	-	✓	✓	✓	✓	-	?	✓	?
4) Improve and promote cyclist and pedestrian network	-	✓	✓	-	✓✓	x	✓✓	-	x	✓	✓	✓✓	✓✓	✓✓	-	✓	?	✓	✓
5) Consider accessibility to all, including the disabled	-	✓	✓	-	✓✓	x	✓	-	x	-	?	-	✓	✓✓	✓	✓	?	✓	?
Issue 10.1 Community Facility provision																			
1 (Q.41): Locate key community facilities in most accessible areas	-	-	✓	?	?	x	?	-	x	-	-	✓	?	✓✓	-	✓	✓	✓	✓
2 (Q.42): Seek alternative community uses/ enhancing existing community facilities	-	-	✓	?	?	x	-	-	x	-	-	✓	-	✓✓	-	✓	✓	✓	✓
3 (Q.43): Seek contributions from new developments for community facilities.	-	-	✓	?	?	x	-	-	x	-	-	✓	-	✓	-	✓	✓	✓	✓
Issue 10.2 Education Provision/Improvisation																			
1) Provide extended school facilities in selected schools	-	-	✓	-	?	x	?	-	x	-	-	✓	?	✓✓	-	-	-	✓	✓
2) Utilisation of surplus school premise space for alternative community purposes.	-	-	✓	-	?	x	?	-	x	-	-	✓	?	✓✓	-	-	-	✓	✓

5.3 Supplemental Issues and Options - November 2006

5.3.1 Assessment Approach

This additional round of Issues and Options consultation considered how the potential expansion of Hemel Hempstead recommended by the independent panel report on the draft East of England Plan could be delivered. It identified 14 different areas for potential growth in the Greenbelt around Hemel Hempstead.

The sustainability appraisal was undertaken at three levels:

- Firstly, the more general elements of the supplementary paper were appraised at a level appropriate to the level of detail contained in each section and the number of options proposed for each question.
- Secondly, the areas put forward as potential urban extensions were assessed at a level, which whilst aiming to remain strategic examine the main sustainability constraints specific to the individual locations.
- Thirdly, the appraisal looked at how the potential increased growth would impact on the existing Core Strategies and the findings of the sustainability appraisal work undertaken to date. The significant increase in potential housing numbers compared to those covered by the original Issues and Options Papers could not be appraised in isolation and it was necessary to examine the wider implications on the immediate and surrounding areas.

As it was considered that many of the issues raised and questions posed in this Issues and Options document were not easily appraised using the SA framework, instead a commentary was provided in terms of the likely sustainability implications of the taking forward the different proposals relating to the issues discussed. For the 17 proposed urban extension sites Geographical Information Systems (GIS) was used to assess the sites in terms of potential constraints and opportunities.

5.3.2 Assessment Results

If the proposed extra growth is required to be delivered at Hemel Hempstead this is likely to have widespread sustainability implications. Whilst there may be positive social and economic effects, there are also likely to be significant adverse environmental effects. These adverse effects are mainly linked to the intrusion into the Green Belt that will almost certainly result from the proposed growth. With this will come the direct impacts of loss of greenfield sites and a range of other direct and indirect impacts which have been discussed above.

The full results of the appraisal can be found in the SA Working Note that accompanied the consultation. This can be accessed via the Dacorum Borough Council website at: <http://www.dacorum.gov.uk/default.aspx?page=6175>.

6 Emerging Core Strategy – 2009

6.1 Introduction

Consultation on the Emerging Core Strategy was undertaken in June 2009 and this was followed by further consideration in August 2009 on options for significant levels of housing growth at Hemel Hempstead, building on the work undertaken in November 2006. In addition strategic allocations in Tring, Berkhamsted, Markyate, Bovington and Kings Langley were considered in February 2010, followed by consideration of further strategic allocations in Hemel Hempstead in April 2010.

Sustainability appraisal was undertaken at all four of these stages and SA Working Notes were prepared to report the findings and recommendations. The sub-sections below summarise the findings of these SA inputs. The full results of these appraisals can be found in the accompanying SA Working Notes which can be accessed via the Dacorum Borough Council website at:

<http://www.dacorum.gov.uk/default.aspx?page=6175>

6.2 Emerging Core Strategy – June 2009

6.2.1 Background

The Emerging Core Strategy published for consultation in June 2009 built upon the previous work on Core Strategy Issues and Options and the findings of a range of technical reports produced as part of the LDF evidence base. The document included the following component chapters:

Borough Vision and Aims

Set out how the Core Strategy should support the vision for the Borough (which is set out in the Dacorum Sustainable Community Strategy).

Borough Themes

The second part of the consultation paper dealt with the four key themes that the Core Strategy would cover. These themes were:

- Sustainable Development;
- Social and Personal Welfare;
- Economic Prosperity; and
- Looking After the Environment

Borough Places (Settlements and Countryside)

Local Development Frameworks are required to put a far greater emphasis upon highlighting the unique characteristics of different parts of the Borough than was required under the old Local Plan system. Individual place strategies have therefore been developed for each of the Borough's towns and large villages, plus a separate strategy for the wider countryside and the small villages within it.

Due to uncertainties caused by the legal challenge to the East of England Plan, the Emerging Core Strategy did not ask for feedback on any new greenfield housing sites on the edge of the town

6.2.2 Assessment Approach

Similar to the assessment of the Initial Issues and Options the elements of the Emerging Core Strategy were assessed against the SA framework objectives in terms of their overall performance ranked from 'very sustainable' to 'very unsustainable', using the scoring criteria outlined previously in section 5.2.1.

6.2.3 Summary of Assessment Results

Themes

Overall the elements that make up the 'Sustainable Development Theme' were forecast as being likely to have minor positive effects on the SA objectives. For example focusing development in Hemel Hempstead was forecast as likely to have positive effects on biodiversity and landscape, due to the protection of countryside, and for greenhouse gas emissions and air quality as a result of reducing the need to travel. Focusing development and associated services in Hemel Hempstead could lead to communities in other settlements becoming isolated if it results in a loss of facilities in the smaller settlements. Therefore adverse effects were forecast against the 'equality & social exclusion' SA objective.

For the 'Social and Personal Welfare Theme' overall the elements were forecast as being likely to have positive effects on the social and economic SA objectives, with significant positive effects being forecast for the housing and sustainable locations objectives. Adverse effects were however forecast for the environmental SA objectives. Providing a minimum of 9,000 new homes within the Borough was forecast as likely to have adverse effects on the biodiversity, soils, use of brownfield sites, greenhouse gas emissions, air quality, resource efficiency and landscape & townscape SA objectives. Significant adverse effects were also identified in relation to water quality/quantity.

Similar to the effects forecast for 'Social and Personal Welfare Theme', the elements within the 'Economic Prosperity Theme' were forecast as likely to have positive effects on the social and economic SA objectives, with a number of significant positive effects being identified, while some adverse effects were forecast for the environmental SA objectives.

Overall the elements within this 'Looking After the Environment Theme' were forecast as likely to have positive effects on the SA objectives. In particular, supporting a hierarchical approach to biodiversity that promotes the creation of a network of greenspaces and green infrastructure was forecast as likely to have a significant positive effect on the 'biodiversity' SA objective.

Borough Places

The Emerging Core Strategy contained spatial strategies for each of the main settlements within the Borough and the Borough's Countryside. Each spatial strategy contained the following elements which were assessed:

- A Vision;
- Development Options; and
- Themes
 - Theme 1: Looking after the Environment
 - Theme 2: Social and Personal Welfare
 - Theme 3: Economic Prosperity
 - Theme 4: Location and Access.

Generic issues, such as those relating to the effects of house building, were not assessed for the individual spatial strategies themes as these issues had been assessed within the overarching Borough Themes assessment. Also, specific site issues have been picked up within the assessment of the development options.

The visions for the individual settlement spatial strategies support the majority of the SA objectives, particularly those that relate to social aspects, such as housing, economy, and access and provision of services. The visions also reflect a consideration of the natural environment (i.e. landscape, water, cultural heritage and biodiversity). In terms of the less tangible SA topics such as air and soil, the visions are less supportive; however, this is not an indication of any negative relationships being identified. In relation

to the local economy, the visions provide support for local supply chains which should help to achieve the related SA objectives.

There is uncertainty over how the visions will meet the SA objectives 'resource efficiency' and 'climate change proof', which could be considered at the next stage during the preparation of the Core Strategy if appropriate.

The vision for the countryside similarly supports the majority of the SA objectives, particularly those that relate to landscape, water, biodiversity and access by improving public transport. However, although the need for housing and employment development in the countryside is recognised in the vision it is less prominent than within the other spatial strategies.

Table 6-1 summarises the findings of the assessment for the Borough place development options. For the countryside the options relate to the level of housing rather than specific development site options. For Hemel Hempstead slightly different elements were included and therefore assessed. The findings of these assessments are summarised in Table 6-2. Table 6-3 summarises the findings of the assessment for the Borough place spatial strategies.

Table 6-1: Summary of Assessment of the Development Options

Options	SA Objectives (Abridged)																			
	1. Biodiversity	2. Water quality/quantity	3. Flood risk	4. Soils	5. GHG Emissions	6. Climate Change Proof	7. Air Quality	8. Use of brownfield sites	9. Resource Efficiency	10. Historic & Cultural Assets	11. Landscape & Townscape	12. Health	13. Sustainable Locations	14. Equality/ Social Inclusion	15. Good Quality Housing	16. Community Identity and Participation	17. Crime and Fear of Crime	18. Sustainable Prosperity and Growth	19. Fairer Access to Services	20. Revitalise Town Centres
Berkhamsted																				
1	x	?	-	x	x	-	x	x	-	x	x	x	x	x	✓	-	-	✓	✓	✓
2	x	-	-	x	?	-	?	x	-	-	x	x	✓	✓	✓	-	-	✓	✓	✓
3	x	-	-	x	x	-	x	x	-	-	x	x	x	x	✓	-	-	✓	✓	✓
4	x	-	-	x	x	-	x	x	-	-	x	x	x	x	✓	-	-	✓	✓	✓
Bovingdon																				
1	x	-	-	x	✓ x	-	✓ x	x	-	x	x	?	✓	-	✓	-	x	✓	✓	✓
2	x ✓	-	-	x	✓ x	-	✓ x	x	-	-	x	✓	✓	-	✓	-	-	✓	✓	✓
3	x	-	-	x	✓ x	-	✓ x	x	-	-	x	✓	x	-	✓	-	-	✓	✓	✓
4	x	-	-	x	✓ x	-	✓ x	✓	-	-	x	?	x	-	✓	-	x	✓	✓	✓
Kings Langley																				
1	x	?	x	x	✓	-	✓	x	-	-	x	✓	✓	✓	✓	✓	-	✓	✓	✓
2	x	-	-	x	✓	-	✓	x	-	x	x	✓	✓	✓	✓	-	-	✓	✓	✓

Markyate																				
1	✓	✓	x	?	✓ x	-	✓ x	✓	-	-	✓	✓ x	✓	✓ x	✓	✓	-	?	✓	✓
	✓	?	x	?	x	-	✓ x	✓ x	-	-	✓	✓ ?	✓ x	✓ x	✓	✓	-	✓	✓	✓
2	x	-	-	x	?	-	x	x	-	-	x	✓	x	x	✓	-	-	✓	✓	✓
	x	-	-	x	✓ ?	-	✓	x	-	x	x	✓	✓	✓ x	✓✓	✓	-	✓	✓	✓
Countryside																				
1	✓	-	-	✓	?	-	-	✓	-	?	?	-	?	x	x	x	-	x	x	-
	x	-	-	x	?	-	-	x	-	?	x	-	?	✓	✓	✓	-	✓	✓	-

Table 6-2: Summary of Assessment for Hemel Hempstead

SA Objectives (Abridged)																			
1. Biodiversity	2. Water quality/quantity	3. Flood risk	4. Soils	5. GHG Emissions	6. Climate Change Proof	7. Air Quality	8. Use of brownfield sites	9. Resource Efficiency	10. Historic & Cultural Assets	11. Landscape& Townscape	12. Health	13. Sustainable Locations	14. Equality/ Social Inclusion	15. Good Quality Housing	16. Community Identity and Participation	17. Crime and Fear of Crime	18. Sustainable Prosperity and Growth	19. Fairer Access to Services	20. Revitalise Town Centres
Town Centre Spatial Principles																			
✓	✓	✓	-	✓	?	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	?	✓	✓	✓

Character Zone	SA Objectives (Abridged)																			
	1. Biodiversity	2. Water quality/quantity	3. Flood risk	4. Soils	5. GHG Emissions	6. Climate Change Proof	7. Air Quality	8. Use of brownfield sites	9. Resource Efficiency	10. Historic & Cultural Assets	11. Landscape& Townscape	12. Health	13. Sustainable Locations	14. Equality/ Social Inclusion	15. Good Quality Housing	16. Community Identity and Participation	17. Crime and Fear of Crime	18. Sustainable Prosperity and Growth	19. Fairer Access to Services	20. Revitalise Town Centres
Town Centre Character Zones																				
1	✓	✓	?	-	✓	-	✓	✓	-	✓	✓	✓	✓	✓	✓	✓	-	✓	✓	✓
2	-	?	?	-	✓	-	✓	-	-	✓	✓	✓	✓	-	-	✓	-	?	✓	✓
3	✓	-	-	-	?	-	?	✓	-	-	✓	?	?	?	✓	✓	-	✓	✓	✓
4	-	-	-	-	✓	-	✓	✓	-	✓	✓	✓	✓	✓	✓	✓	-	✓	✓	✓
5	-	?	?	-	✓	-	✓	✓	-	-	✓	✓	✓	-	-	✓	-	✓	✓	✓
6	-	?	?	-	✓	-	✓	-	-	-	✓	✓	-	-	-	✓	-	✓	✓	✓

Table 6-3: Summary of Assessment of the Place Spatial Strategies

Themes	SA Objectives (Abridged)																			
	1. Biodiversity	2. Water quality/quantity	3. Flood risk	4. Soils	5. GHG Emissions	6. Climate Change Proof	7. Air Quality	8. Use of brownfield sites	9. Resource Efficiency	10. Historic & Cultural Assets	11. Landscape & Townscape	12. Health	13. Sustainable Locations	14. Equality/ Social Inclusion	15. Good Quality Housing	16. Community Identity and Participation	17. Crime and Fear of Crime	18. Sustainable Prosperity and Growth	19. Fairer Access to Services	20. Revitalise Town Centres
Berkhamsted																				
1	✓	✓	✓	-	-	-	-	*	-	-	✓	✓	-	-	✓	-	-	-	-	-
2	-	-	-	-	-	-	-	✓ *	-	-	-	-	✓	✓	✓✓	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	✓	-	-	✓	✓	✓	*	✓
4	?	-	-	-	✓	-	✓	-	-	-	✓	✓	-	✓	-	-	-	-	-	-
Bovingdon																				
1	✓	-	-	-	-	-	-	*	-	✓	✓	-	-	-	-	✓	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	✓	✓	-	-	✓✓	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	✓	-	-	✓	-	✓	✓	✓
4	-	-	-	-	✓	-	✓	-	-	-	-	-	-	✓	-	-	-	-	-	-
Hemel Hempstead																				
1	✓	-	-	-	✓	-	-	-	✓	✓	✓	✓	-	✓	-	✓	-	✓	-	-
2	*	*	?	*	*	-	*	*	*	?	*	✓	?	✓	✓✓	✓	-	✓	✓	✓
3	?	?	?	*	?	-	*	*	?	?	?	✓	✓	✓	✓	✓	✓	✓	✓	✓
4	?	?	?	?	?	-	?	?	-	?	?	✓	✓	✓	-	✓	✓	?	✓	✓
Kings Langley																				
1	✓	✓	-	-	✓	?	-	*	?	✓	✓	✓	-	-	-	✓	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓✓	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	✓	✓	-	✓	-	*	✓	✓
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	-
Markyate																				
1	-	-	-	-	✓	?	-	*	-	✓	✓	-	-	-	-	✓	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	✓	-	-	✓✓	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	-	✓	✓	✓
4	-	-	-	-	-	-	-	-	-	-	-	-	✓	✓	-	-	-	-	✓	-
Tring																				
1	✓	-	-	-	✓	?	-	-	-	✓	✓	✓	-	-	-	✓	-	-	-	-

Themes	SA Objectives (Abridged)																			
	1. Biodiversity	2. Water quality/quantity	3. Flood risk	4. Soils	5. GHG Emissions	6. Climate Change Proof	7. Air Quality	8. Use of brownfield sites	9. Resource Efficiency	10. Historic & Cultural Assets	11. Landscape & Townscape	12. Health	13. Sustainable Locations	14. Equality/ Social Inclusion	15. Good Quality Housing	16. Community Identity and Participation	17. Crime and Fear of Crime	18. Sustainable Prosperity and Growth	19. Fairer Access to Services	20. Revitalise Town Centres
	?																			
2	-	-	-	-	-	-	-	x	-	✓	-	✓	-	-	✓	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	-	✓	✓	✓
4	-	-	-	-	✓	-	✓	-	-	-	-	✓	✓	✓	-	-	-	-	-	-
Countryside																				
1	✓	-	-	-	-	-	-	-	-	✓	✓	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	✓	✓	-	✓	✓	-	?	-	-
3	-	-	-	-	✓	-	-	-	-	-	-	-	-	-	-	-	-	✓	✓	✓
4	-	-	-	-	✓	-	✓	-	-	-	-	✓	-	✓	-	-	✓	-	✓	-

6.2.4 Recommendations

To help improve its sustainability performance a number of recommendations and mitigation measures were identified during the assessment process that could be incorporated into the evolving Core Strategy or the lower tier development plan documents. These recommendations are summarised below under key themes.

The Natural Environment

- The policy approach towards treating established species in brownfield sites is unclear and should be addressed.
- Consider the protection and enhancement of geodiversity.
- When developing on greenfield land measures should be taken to avoid adverse impacts on biodiversity, such as maintaining and enhancing green corridors and providing green open spaces.
- The biodiversity of brownfield sites should be assessed prior to redevelopment.
- Consider measures to control light pollution (particularly in rural areas).
- Steer development away from high quality agricultural land.
- Use the Hertfordshire Historic Landscape Characterisation to help determine the most appropriate areas and sites for development.

Resource use

- Consider policy wording linked to providing developments and infrastructure which is 'climate proof' or resilient to the effects of climate change such as through robust and weather resistant building structures.
- Encourage the use of water minimisation methods, such as grey water recycling, and the use of SUDS.

- Consider the use of porous surfaces to reduce run-off.
- Steer development away from floodplains.
- Require new commercial development to meet high BREEAM standards.
- Encourage developments to use district heating systems and combined heat and power wherever appropriate.
- Consider requiring all new developments to generate renewable energy, e.g. through the use of photo voltaic cells, solar panels or mini-wind turbines.
- Encourage minimising levels of household waste and increasing levels of recycling and composting.
- Consider adding policy wording linked to developments which consider sustainable construction techniques and using renewable, secondary or sustainably sourced local materials in buildings and infrastructure.
- Consider policy wording that supports initiatives aimed at behavioural change to increase the likelihood of reducing average distances travelled.

Social factors

- Propose that all new homes will meet the Governments Lifetime Homes Standards.
- Consider minimising noise in residential areas.
- Consider the need for key worker housing.
- Consider specifically protecting and enhancing green and open spaces within urban areas.
- Consider how design can result in crime reduction.

Achieving a sustainable economy

- Include measures to ensure that buildings are E-enabled, (sufficient access to IT services); this in turn will help support the knowledge based economy.
- Identification of measures to ensure the necessary variety of employment sites and opportunities for the existing local population.
- The opportunity to provide live-work units and measures to encourage home working should be explored.

6.3 Housing Growth Options at Hemel Hempstead – August 2009

6.3.1 Background

Building on the work undertaken on the Supplemental Issues and Options (Growth at Hemel Hempstead) in November 2006 (see Section 5) three options for delivering significant housing growth around Hemel Hempstead were developed and assessed as part of building the evidence base for the Core Strategy. The options considered were:

- Option 1 – Eastern Growth Strategy
- Option 2 – Northern Growth Strategy
- Option 3 – Dispersed Growth Strategy

In March 2009, Dacorum BC developed and consulted upon a methodology for assessing these alternative growth scenarios for Hemel Hempstead. The approach aimed to assess the relative strengths and weaknesses of the growth options and was developed in consultation with a wide range of stakeholders.

C4S also provided input at various stages during the development of the methodology to ensure that it was compatible with the SA process being undertaken alongside the work being undertaken by Dacorum BC.

6.3.2 Assessment Approach

A comprehensive assessment of the three alternative growth options was undertaken by Dacorum BC officers and this assessment covered many of the issues within the SA framework. In order for the SA to add value to the evidence base, rather than repeating the assessment already undertaken, the SA therefore just assessed broader overarching issues relating to the three options, i.e. dispersed vs. concentrated and east vs. north. The SA provided a comparative assessment between the options and also provided an assessment of the 'common features' for all of the growth options against the SA objectives.

6.3.3 Summary of Assessment Results

The following table summarises the findings of the assessment.

Housing Options	SA Objectives (Abridged)																			
	1. Biodiversity	2. Water quality/quantity	3. Flood risk	4. Soils	5. GHG Emissions	6. Climate Change Proof	7. Air Quality	8. Use of brownfield sites	9. Resource Efficiency	10. Historic & Cultural Assets	11. Landscape & Townscape	12. Health	13. Sustainable Locations	14. Equality/ Social Inclusion	15. Good Quality Housing	16. Community Identity & Participation	17. Crime & Fear of Crime	18. Sustainable Prosperity & Growth	19. Fairer Access to Services	20. Revitalise Town Centres
1	*	-	-	*	✓	-	✓	**	✓	*	*	✓	✓	✓	-	✓	-	-	✓	✓
					?											*			?	
2	**	-	*	*	✓	-	✓	**	✓	*	**	✓	✓	✓	-	✓	-	✓		✓
	✓				?						?	?				*				
3	*	*	-	*	✓	-	✓	**	*	*	*	✓	✓	-	-	*	-	-	✓	-
					?		?									✓			?	

The features common to all of the growth options were forecast as likely to have a variety of positive and negative effects on the SA objectives. Negative effects on the environmental objectives were forecast as a result of the impact of constructing 7,000 new homes and employment within Green Belt land. In particular, significant negative effects were forecast on two of the SA objectives: use of brownfield sites and landscape & townscape. However, some of the common features, such as those requiring developers to meet the national standards for the Code for Sustainable Homes, to provide new open spaces and provide neighbourhood facilities, could help to mitigate these adverse effects.

In order to reduce the need for the Green Belt development, which is forecast as having an adverse environmental effect, options for high density development within the town centre were recommended be taken forward wherever possible particularly on areas of previously developed land. High density development may allow for a reduction of the number or size of new neighbourhoods that need to be developed, however pressure to maximise use of land within the town boundary should not be allowed to undermine the need to retain public open space within the town itself.

A number of positive effects were forecast for the social and economic objectives. For example, ensuring all residents have access to high quality open space for informal recreation and leisure activities through the provision of open space and woodlands should help to encourage healthier lifestyles. Also, providing key neighbourhood facilities, including primary schools, local convenience stores, public open space and community halls, within the new developments should have a positive effect by providing access to services for new and existing neighbouring communities.

Significant positive effects were forecast for the housing SA objective as all new development will be required to meet very high standards of design. This should provide for good quality housing developments, and neighbourhoods will be expected to deliver a high level of affordable housing. In addition, significant positive effects were forecast for the 'sustainable prosperity' and 'access to services' objectives as providing additional land for employment in the Maylands Business Area should allow for the provision of local job opportunities for new and existing communities.

6.3.4 Comparison of Options

As the three broad alternative 'packages' of development sites being considered had similar overall footprints, and in the main cover similar 'Blue Blobs'⁴ () albeit with slightly different individual footprints, the effects forecast for the different options on the SA objectives were fairly similar. In some cases it was not possible to identify significant differences in how the alternative packages perform against the SA objectives.

In particular the effects of the eastern and dispersed options were considered to be very similar with the additional site at Shendish being the only real distinguishing difference between the two, although the eastern option does require more housing to the east of Hemel Hempstead. The northern strategy is somewhat different to the eastern and dispersed strategies as the growth is focused to the north of the town and would require the construction of a new bypass. As a result this option was therefore forecast to have more significant effects on some of the SA objectives than the eastern and dispersed options and would also result in indirect effects on other areas of the town.

The northern growth strategy was forecast as more likely to result in more significant adverse effects on biodiversity as it will require the construction of the bypass which would result in greater landtake and habitat fragmentation and therefore negative effects on habitats and species. The more concentrated northern strategy may however allow for the provision of larger open spaces than the eastern and dispersed strategies and this could lead to positive effects on biodiversity.

The northern growth strategy was also forecast as more likely to have significant adverse effects on landscape than the other two strategies. Although all of the options will result in developing land to the West of Hemel Hempstead thereby bringing the town closer to the AONB boundary, the northern strategy will involve building more new housing and a bypass to the west and north of the town. Focusing housing development to the east of Hemel Hempstead between the existing town boundary and the M1 is likely to result in fewer adverse effects on landscape and tranquillity as the quality of the landscape to the east of the town is already affected by the presence of the motorway.

The eastern and dispersed growth strategies which provide housing in closest proximity to the Maylands Business Area could have a more positive effect on the 'greenhouse gas emissions' and 'air quality' objectives than the northern strategy as they should help to reduce the need to travel to this major employment area and could encourage walking and cycling. However, providing housing to the east of Hemel Hempstead close to the M1 junction may increase out-commuting as the new residents may choose to live here as it provides easy access to the motorway network.

⁴ 'Blue Blobs' is a term used to describe the broad areas of search from the November 2006 Supplementary Issues and Options Paper

The slightly more concentrated eastern and northern growth strategies may allow for the development of a greater range of neighbourhood services and facilities which could have a positive effect on a number of the SA objectives, including 'greenhouse gas emissions', 'air quality', 'health' and 'equality and social exclusion' as a result of improving accessibility and encouraging the use of more sustainable and active modes of transport.

The eastern strategy in combination with the East Hemel Hempstead Area Action Plan (AAP), should they both proceed, could have cumulative positive effects on the economic and social objectives through the provision of employment, leisure and housing in close proximity, plus improvements to the transport infrastructure. There could also be positive effects on a number of the SA objectives, for example it could result in reducing the need to travel thereby helping to minimise the growth in greenhouse gas emissions and other air emissions.

6.4 Additional Strategic Allocations – February 2010

6.4.1 Background

This addendum to the August 2009 Working Note summarises the findings of the Sustainability Appraisal on a number of additional allocations put forward for consideration in Tring and Berkhamsted and on two different options for development at Egerton Rothesay School, Durrants Lane / Shootersway, Berkhamsted.

Tring

- Option 1: Waterside Way; and
- Option 2: Station Road.

Berkhamsted

- Land to the South; and
- Egerton Rothesay School
 - Option 1: Redevelopment of the site as currently proposed in the Local Plan.
 - Option 2: Redevelopment of the site in accordance with a revised landowner proposal.

For the Egerton Rothesay School site the decision to remove the site from the Green Belt has already been taken (Dacorum Borough Local Plan 1991-2011) and the assessment was therefore more focused on the comparison between the two different options being considered for the redevelopment of the Egerton Rothesay School site.

6.4.2 Summary of Assessment Results

The following table summarises the findings of the assessment.

Table 6-4: Summary of the Assessment of the Additional Strategic Allocations – Feb 2010

Options	SA Objectives (Abridged)																			
	1. Biodiversity	2. Water quality/quantity	3. Flood risk	4. Soils	5. GHG Emissions	6. Climate Change Proof	7. Air Quality	8. Use of brownfield sites	9. Resource Efficiency	10. Historic & Cultural Assets	11. Landscape & Townscape	12. Health	13. Sustainable Locations	14. Equality/ Social Inclusion	15. Good Quality Housing	16. Community Identity and Participation	17. Crime and Fear of Crime	18. Sustainable Prosperity and Growth	19. Fairer Access to Services	20. Revitalise Town Centres
Tring																				
1	x	x	-	x	x	✓	x	x	-	-	x	✓	x	x	✓	✓	-	✓	✓	✓
2	x	-	-	x	x	-	x	x	-	x	x	✓	x	x	?	-	-	✓	✓	✓
Berkhamsted – Land to the South																				
1	x	-	-	x	✓	-	✓	x	-	x	x	x	✓	✓	✓	✓	-	✓	✓	✓
Berkhamsted – Egerton Rothesay																				
1	x	-	-	x	x	✓	x	x	✓	x	x	x	x	x	✓	-	-	✓	✓	✓
2	x	-	-	x	x	-	x	x	-	x	x	x	x	x	✓	-	-	✓	✓	✓

6.5 Further Additional Strategic Allocations – April 2010

6.5.1 Background

This second addendum summarises the findings of the Sustainability Appraisal on a number of Additional Strategic Development Locations and Sites located in the Greenbelt around Hemel Hempstead. These sites were at:

- Shendish (North)
- Shendish (South)
- Felden
- West Hemel Hempstead (North)
- West Hemel Hempstead (South)
- Marchmont Farm
- Old Town; and
- Nash Mills

6.5.2 Summary of Assessment Results

The following table summarises the findings of the assessment.

Table 6-5: Summary of the Assessment of the Additional Strategic Allocations – April 2010

SA Objectives (Abridged)																			
1. Biodiversity	2. Water quality/quantity	3. Flood risk	4. Soils	5. GHG Emissions	6. Climate Change Proof	7. Air Quality	8. Use of brownfield sites	9. Resource Efficiency	10. Historic & Cultural Assets	11. Landscape & Townscape	12. Health	13. Sustainable Locations	14. Equality/ Social Inclusion	15. Good Quality Housing	16. Community Identity and Participation	17. Crime and Fear of Crime	18. Sustainable Prosperity and Growth	19. Fairer Access to Services	20. Revitalise Town Centres
Shendish North																			
x	-	-	x	✓	-	?	x	x	x	xx	x	✓	✓ x	✓	-	-	✓	✓	x
Shendish South																			
x	-	-	x	✓	-	?	x	x	x	x	✓ x	✓	✓ x	✓	-	-	✓	✓	x
Feldon																			
xx	-	-	x	x	-	x	x	-	-	x	x	x	x	✓	-	-	✓	✓	x
West Hemel Hempstead (North)																			
x	-	-	x	x	-	x	x	-	-	x	x	x	x	✓	-	-	✓	✓	x
West Hemel Hempstead (South)																			
x	-	-	x	x	-	x	x	-	-	x	x	x	x	✓	-	-	✓	✓	x
Marchmont Farm																			
x	-	-	x	✓	-	✓	x	-	-	x	✓	✓	✓	✓	-	-	✓	✓	x
Old Town																			
x	-	-	x	✓	-	✓	x	-	?	x	✓ x	✓	✓	✓	-	-	✓	✓	x
Nash Mills																			
x	-	x	x	✓	-	✓	x	x	-	x	✓ x ?	✓	?	✓	-	-	✓	✓	x

7 Assessment of the Draft Core Strategy - October 2010

7.1 Introduction

In July 2010, an informal Working Draft Core Strategy was published for targeted stakeholder consultation. An associated SA Working Note was published in September 2010 that assessed the elements contained within the Working Draft. The SA Working Note can be accessed via the Dacorum Borough Council website at:

<http://www.dacorum.gov.uk/default.aspx?page=6175>

Whilst undertaking the SA assessment of the Working Draft Core Strategy in July 2010 a number of specific recommendations, were suggested to DBC. The recommendations made can be seen in Section 8.

A Draft Core Strategy has been prepared taking into consideration all the iterations to the emerging options and this has now been appraised. Based on the methodology described above (Section 5.2) all Core Strategy policies, place strategies, local allocations and strategic sites were assessed and the results presented as detailed assessment matrices in Appendices E and F.

7.2 Summary of the Assessment

Table 7-1 provides a summary of the assessment of the Draft Core Strategy against the SA/SEA objectives.

The sections that follow summarise the results of the assessments for each Core Strategy element, followed by a summary of the assessment by SA objective (including any cumulative, synergistic and secondary effects). In addition, cross boundary effects are discussed in Sections 7.10.

7.3 Sustainable Development Strategy

7.3.1 Policy CS1: Distribution of Development

The policy should provide a good balance between focusing development in the key settlements whilst allowing for demonstrated local needs to be met in smaller settlements and rural areas. The growth in key settlements will help to support certain regeneration needs in the towns and improve levels of community vitality, with associated social and economic benefits. It will also help to service the needs of surrounding areas. By concentrating growth in Hemel Hempstead and the other larger settlements the impacts on the Borough's natural environment will be minimised.

7.3.2 Policy CS2: Selection of Development Sites; CS3: Managing Selected Development Sites

The policies are predicted to have mainly positive effects against the majority of SA objectives, although in the medium to long-term when the supply of previously developed land has diminished the effects are more uncertain against the environmental objectives. Ensuring that all development is well located and accessible will help to reduce the need to travel and help towards meeting objectives for greenhouse gas emissions, air quality, health, equality, economy and fairer access to services. It will also help to improve the vitality and viability of settlements, particularly the town centres.

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Table 7-1: Summary of Assessment

Policies (Abridged)	Sustainability Appraisal Objectives																			
	Biodiversity	Water quality/quantit	Flood risk	Soils	Greenhouse gas emissions	Climate change proof	Air Quality	Use of brownfield	Resource efficiency	Historic & cultural assets	Landscape & townscape	Health	Sustainable locations	Equity & social exclusion	Good quality housing	Community Identity	Crime & fear of crime	Sustainable prosperity	Fairer access to services	Revitalise town centres
CS1: Distribution of Development	✓	-	-	✓	✓	-	✓	?	-	✓	✓	✓	✓	✓	-	✓	-	✓	✓	✓
CS2: Selection of Sites; CS3: Managing Sites	✓ ?	-	-	?	✓	-	✓	?	✓	✓	?	✓	✓	✓	-	✓	-	✓	✓	✓
CS4: Towns & Large Villages	✓	-	✓	✓	✓	-	✓	✓	-	✓	✓	✓	✓	✓	-	✓	✓	✓	✓	✓
CS5 Green Belt; CS6: Small villages; CS7: Rural Area	✓	-	-	✓	✓ *	-	-	?	✓	✓	✓	-	✓	✓	✓	✓	-	✓	✓	✓
CS8: Sustainable Transport	✓	-	-	?	✓	-	✓	-	-	✓	?	✓	✓	✓	-	✓	✓	✓	✓	✓
CS9: Management of Roads	?	-	-	*	✓ ?	-	✓ ?	*	-	-	?	✓	-	✓	-	✓	-	✓	✓	?
CS10, CS11, CS12 & CS13: Design policies.	✓	-	✓	-	✓	✓	-	-	-	✓	✓	✓	-	-	✓	✓	✓	✓	-	✓
CS14, CS15, & CS16: Economy and Retail policies	?	-	-	*	✓ *	-	✓ *	✓	-	-	*	✓	✓	✓	-	✓	-	✓ ✓	✓	✓
CS17: Housing Programme																				
Option 1: 370 dpa (9,250 total)	?	* ?	-	*	* ✓	-	-	-	-	?	-	- *	-	* ✓	* ✓	?	-	* ✓	* ✓	?
Option 2: 430 dpa (10,750 total)	?	* ?	-	*	* ✓	-	* *	* *	?	?	*	?	✓ *	* ✓	✓	?	?	✓	✓	✓
Option 3: Natural Growth: 500 dpa (12,500 total)	?	* ?	-	*	* ✓	-	* *	* *	?	**	?	?	✓ *	* ✓ ✓	✓ ✓	?	?	✓	✓	✓
CS18: Mix of Housing; CS19: Affordable Housing; CS20: Rural Exception Sites	?	-	-	-	✓	-	-	-	-	-	?	✓	✓	✓ ✓	✓ ✓	✓	-	✓	✓	-
CS21 & CS22: Gypsy and	?	-	-	-	-	-	-	?	*	-	✓	✓	✓	✓ ✓	✓	✓	?	-	✓	-

Policies (Abridged)	Sustainability Appraisal Objectives																			
	Biodiversity	Water quality/quantit	Flood risk	Soils	Greenhouse gas emissions	Climate change proof	Air Quality	Use of brownfield	Resource efficiency	Historic & cultural assets	Landscape & townscape	Health	Sustainable locations	Equity & social exclusion	Good quality housing	Community Identity	Crime & fear of crime	Sustainable prosperity	Fairer access to services	Revitalise town centres
Traveller policies																				
CS23: Social Infrastructure	?	-	-	*	✓	✓	-	✓	-	✓	*	✓	✓	✓	-	✓✓	-	-	✓	✓
CS24 – CS27: Natural Environment policies	✓✓	✓	✓	✓	✓	✓	✓	-	-	✓✓	✓✓	✓	-	✓	-	✓	-	-	-	✓
CS28 – CS32: Carbon and pollution policies	✓	✓✓	✓	✓	✓✓	✓	✓	✓✓	✓✓	?	?	✓	-	-	-	-	-	-	-	-
CS34: Infrastructure & Developer Contributions	✓	✓	-	-	-	-	-	-	✓	-	-	✓	✓	-	-	✓	-	✓	-	-
Spatial Strategy: Hemel Hempstead	?	?	?	*	*	-	*	*	*	✓	*	✓	✓	✓	✓	✓	-	✓	✓	✓
	*	*			?		✓	✓	*	?	✓		*	✓	✓	✓		✓	✓	✓
CS33: HH Town Centre Design Principles	-	-	-	-	✓	-	✓	-	✓	✓	✓	✓	✓	✓	-	✓	?	✓	✓	✓
CS34: Maylands Business Park	?	?	-	*	✓	-	✓	*	✓	-	✓	✓	✓	✓	-	✓	-	✓	✓	✓
					?		?				?	✓	✓	✓	✓	✓		✓	✓	✓
Spatial Strategy: Berkhamsted	?	✓	✓	*	*	-	?	*	*	-	?	✓	✓	✓	✓	✓	-	✓	✓	✓
		*			?							✓	✓	✓	✓	✓		✓	✓	✓
Spatial Strategy: Tring	?	*	-	*	*	-	-	*	*	✓	?	✓	✓	✓	✓	✓	-	✓	✓	✓
										✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
Spatial Strategy: Kings Langley	?	✓	-	*	*	-	-	*	*	✓	?	✓	✓	✓	✓	✓	-	?	✓	✓
	✓									✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
Spatial Strategy: Bovington	?	*	-	*	*	-	-	*	*	-	?	✓	✓	✓	✓	✓	-	✓	✓	✓
											✓	✓	✓	✓	✓	✓		✓	✓	✓
Spatial Strategy: Markyate	?	✓	*	*	✓	-	✓	✓	*	✓	✓	✓	✓	✓	✓	✓	-	✓	✓	✓
	✓	*		?	*		*	*	*	✓	✓	*	✓	*	✓	✓		✓	✓	✓
Spatial Strategy: Countryside	✓	✓	-	*	✓	-	-	-	-	✓	✓	✓	✓	✓	*	✓	-	?	?	-
	*									✓	*	✓	*	*	*	✓		?	?	-

7.3.3 Policy CS4: The Towns and Large Villages

The policy supports a mix of uses for new developments which should help to maintain or improve the vitality and viability of town centres and the large villages. The provision of appropriately scaled employment opportunities, services and facilities to meet the needs of the local population will help to reduce the need to travel to other areas for day to day needs, whilst at the same time protecting the areas from developments which are incompatible with the local landscapes and townscapes. By aiming to meet the needs of local communities the policy will help to reduce inequalities, particularly for those without access to the private car as well as supporting local economies.

7.3.4 Policies: CS5 Green Belt; CS6 Selected Small villages in the Green Belt; CS7 Rural Area

Whilst allowing limited development in the villages/countryside could result in some adverse effects on soils, biodiversity and local landscapes the policies generally perform well against the majority of the SA objectives. The policies allow for an appropriate level of development in the smaller settlements which should help to maintain community vitality and the viability of service provision as well as supporting local rural economies. The policies should also help reduce the need to travel to access local services as well as enabling access to everyday needs for those who do not have access to a private car. The policies also prevent the character of settlements from being adversely affected by an inappropriate scale of new development. If new employment development or countryside recreation activities result in an increase in vehicle use to travel into the area there would be adverse effects through increased greenhouse gas emissions.

7.3.5 Policy CS8: Sustainable Transport

The policy has been assessed as having positive effects against the majority of SA objectives. The policy aims to promote sustainable travel options which could contribute to a reduction in local air pollution and greenhouse gas emissions. The policy is also likely to bring health benefits through improving local air quality, reduced stress levels due to reduced congestion, and the promotion of walking and cycling leading to enhanced health and physical fitness benefits. Supporting alternative modes to the private car will increase the availability of alternatives for those without access to a private vehicle, increasing equality and reducing social exclusion, and fairer access to services. Providing efficient and accessible transport is essential in promoting economic growth and will therefore aid sustainable prosperity and growth. The promotion of walking, cycling and the use of public transport may enable greater interaction within communities and reduce severance associated with traffic, which could have positive effects for community identity and participation. Achieving a reduction in urban congestion will also help to make the town centre a more attractive place to visit, aiding the revitalisation of town centres.

7.3.6 Policy CS9: Management of Roads

The delivery of the north-eastern relief road has been predicted as having some uncertain and negative effects as it would require development of greenfield land and may result in increased traffic levels resulting from induced traffic. However other elements of the policy have been assessed as having positive effects, particularly in relation to the safe movement of all road users which should encourage take-up of walking and cycling with associated health benefits. Directing all new development to the appropriate category of road should help to reduce adverse effects of traffic on local communities.

7.3.7 Policies: CS10 Quality of Settlement Design; CS11 Quality of Neighbourhood Design; CS12 Quality of Site Design; CS13 Quality of the Public Realm

The design policies have been forecast as having positive effects against many of the environmental objectives, with the natural and built environmental improvements that would be linked to the implementation of the policy being predicted to have associated positive effects on social and economic objectives. Improving the public realm should make urban areas more attractive places to live and also help to increase community identity and participation.

7.4 Strengthening Economic prosperity

7.4.1 Policies: CS14 Economic Development; CS15 Offices, Research, Industry, Storage and Distribution; CS16 Shops and Commerce

The policies support the development of a sustainable economy within the area and should help to reduce the need to travel to access employment opportunities. The policies aim to concentrate new development in Hemel Hempstead but should also help to maintain the vitality of local communities by enabling employment opportunities appropriate to the size and character of the settlements to be provided. The protection of employment areas should help ensure that communities do not suffer from the loss of important employment opportunities. The provision of a supply of employment land from within the Green Belt is likely to have adverse effects on local landscapes, and any new greenfield or brownfield development could have impacts on biodiversity, dependent on the characteristics of the individual locations. By providing a range of employment opportunities and retail provision locally the needs of the local population are more likely to be met and this would have a positive effects in terms of reducing the need to travel (with associated greenhouse gas emissions) and providing fairer access to jobs and services.

7.5 Providing Homes and Community Services

7.5.1 Policy CS17: Housing Programme

7.5.1.1 Option 1: 370 dpa (9,250 total)

Compared to Options 2 and 3 (see below), the lower levels of growth proposed under this option will result in less adverse effects on the environment that are inevitably associated with new development (e.g. effects on local landscapes, soil sealing, natural resource use, increased waste, and increased emissions to air).

However conversely, the lower level of growth will limit the success of meeting a number of the social and economic objectives. The needs of the local community for new housing, particularly affordable housing, will not be met which could result in increased levels of out-migration to neighbouring areas. This would in turn have implications for the viability of existing services and facilities in the Borough and reduce the vitality of the town and village centres. The lower level of growth would also not support the planned delivery of a significant number of new jobs which would hamper the economic regeneration of both Hemel Hempstead town centre and the Maylands Business District.

7.5.1.2 Option 2: 430 dpa (10,750 total)

Delivering Option 2 would result in the need for some development in the Greenbelt with associated adverse effects on some of the environmental objectives. Resource use will increase and there will be increased waste, increased emissions to air and some loss of tranquillity.

However the higher levels of new dwellings will go further towards supporting the planned job expansion in Maylands as well as the regeneration of Hemel Hempstead. The option will result in a greater provision of affordable housing than Option 1, and will help to maintain viability of existing services whilst also encouraging the provision of new and expanded facilities.

7.5.1.3 Option 3: Natural Growth 500 dpa (12,500 total)

In addition to the two housing growth options contained in the Core Strategy, a natural growth option has also been assessed as part of the SA to provide a comparison assessment so that the implications of the two options can be compared with a situation in which all natural growth were to be met.

Delivering Option 3 would result in the need for additional development in the Greenbelt over Option 2 with associated adverse effects on some of the environmental objectives. Resource use will increase and there will be increased waste, increased emissions to air and some loss of tranquillity.

However the higher levels of new dwellings will go further towards supporting the planned job expansion in Maylands as well as the regeneration of Hemel Hempstead. The option will result in a greater provision of affordable housing than Options 1 and 2, and will help to maintain viability of existing services whilst also encouraging the provision of new and expanded facilities.

By fully meeting the needs for new housing in the villages and countryside this option goes the furthest towards helping to sustain the rural communities of the Borough.

7.5.2 Policies: CS18 Mix of Housing; CS19 Affordable Housing; CS20 Rural Exception Sites

These policies are forecast to have some significant positive effects against the social objectives as the provision of an appropriate mix of housing, including affordable housing aims will help to promote equality and social inclusion. The provision of rural exceptions sites could have some adverse effects on biodiversity and local landscapes, however this will be dependent on the sites selected.

7.5.3 Policies: CS21 Existing Accommodation for Travelling Communities; CS22: New Accommodation for Gypsies and Travellers

The policy performs well in terms of its contribution to achieving social objectives and it is likely to encourage a more participatory society. As a result significant positive effects have been identified for equality and social exclusion. The policies place constraints on the size and location of sites which should help to support achievement of some of the environmental objectives, however there could be some adverse effects dependent on the location and characteristics of the sites selected.

7.5.4 Policy CS23: Social Infrastructure

The provision of social infrastructure that provides service and facilities for the local community, as well as the protection of existing facilities, will help towards the achievement of many of the social objectives, particularly that for enhancing community identity and participation. However the provision of new school facilities on greenfield sites could have adverse effects on several of the environmental objectives although the effects will be dependent on the sites that are selected.

7.6 Looking after the Environment

7.6.1 Policies: CS24 The Chilterns Area of Outstanding Natural Beauty; CS25 Landscape Character; CS26 Green Infrastructure; CS27 Quality of the Historic Environment

The policies are forecast to have significant positive effects for biodiversity, cultural heritage and landscapes and other associated indirect positive effects, for example through green infrastructure helping to mitigate the effects of climate change. The protection and enhancement of the natural environment will also have positive effects on several of the social objectives, as creating a higher quality natural environment will encourage more people to use open spaces for recreation and will improve the attractiveness of local environments.

7.6.2 Policies: CS28 Carbon Emissions Reductions; CS29 Sustainable Design and Construction; CS30 Carbon Offset Fund; CS31 Water Management; CS32 Pollution Control

Significant positive effects relating to efficient water use, greenhouse gas emissions, remediation of contaminated land, waste reduction, renewable energy generation and energy efficiency have been predicted for this suite of policies. Other positive effects have been predicted against the environmental objectives particularly as a result of the sustainable design and construction policy. There is uncertainty as to how the provision of renewable energy generating equipment will affect local landscapes & townscapes as well as the historic environment. Limited effects have been identified against the social and economic objectives.

7.7 Place Strategies

A series of Place Strategies have been developed for each of the Borough's towns and large villages, together with the wider countryside. The role of these strategies is to take forward the settlement hierarchy. Within these place strategies, a number of strategic sites and locations have also been identified and along with the overall strategies these have each been assessed against the SA Framework. A summary of the findings is provided below.

7.7.1 Hemel Hempstead

Spatial Strategy

The level of proposed housing and employment development in the town is forecast to have negative effects for biodiversity and landscape and townscape as a result of loss of Greenbelt; water as a result of putting pressure on already under pressure resources and soils and use of brownfield sites as a result of development on greenfield land. Negative effects are also forecast on greenhouse gas emissions, air quality, and resource efficiency. Uncertainty has been identified in relation to flood risk, as a number of the potential housing allocation sites are located within flood risk zones.

Positive effects have been forecast against the majority of the social and economic objectives. For example, delivery of 8,600 new homes will help to meet local housing need, and enhancing employment, retail and leisure opportunities could make the town a more attractive place to live, work and visit.

Policy CS33: Hemel Hempstead Town Centre Design Principles

Policy CS33 which outlines Town Centre Design Principles is forecast as likely to have positive effects on the majority of the objectives. For example, measures to secure an integrated public transport hub and improve pedestrian access and movement should help to reduce the reliance on private cars with associated reductions in greenhouse gas emissions and airborne emissions. Also focusing retail development and other town

centre uses within the town centre should help to support the local economy and improve the viability and vitality of the area.

Policy CS34: Maylands Business Park

Policy CS34 which outlines design guidance for guiding development in Maylands is forecast as likely to have a positive effect on many of the objectives. For example, delivering a local centre in the Heart of Maylands should improve access to facilities and services and revitalise the local area. In addition, securing an integrated public transport network between the town centre and the rail station and the Business Park, as well as establishing an area wide Green Travel Plan could reduce congestion, having a positive effect on the air quality and greenhouse gas emissions objectives.

The proposed delivery of a new north-eastern relief route has resulted in uncertain effects being forecast for biodiversity and landscape & townscape and adverse effects on soil and use of brownfield sites. Additionally, due to potential for induced traffic uncertain effects have been forecast on air quality and greenhouse gas emissions.

Local Allocation: West Hemel Hempstead (North)

This option is forecast as having adverse effects on greenhouse gas emissions and air quality, as the site is located at a distance from shops and facilities, which could increase the need to travel. Walking and cycling may be discouraged due to the topography of the area. Adverse effects have also been forecast for biodiversity, soils, and use of brownfield sites. The site is greenfield within the Greenbelt, and would therefore result in loss or damage of habitats, as well as soil sealing. The option would have a visual impact on the landscape of the Bulborne Valley.

In terms of health, The option is located at a distance from shops and facilities which could discourage walking and cycling, and the topography of the site may also discourage these modes. The local health facilities are at capacity, thereby having an adverse effect on health.

In terms of equality and social exclusion, the option is located at a distance from local facilities, and local health facilities are at capacity. However, there is potential capacity in local schools.

Positive effects have been forecast against the majority of the social and economic objectives, including housing, sustainable prosperity and growth, and fairer access to services objectives. The option will provide approximately 450 units of housing, including a proportion of affordable housing. The provision of additional housing means there will be more residents in the community, making facilities and shops more viable. This would help to support the local economy. However, this option could result in adverse effects on revitalising town centres, as by developing new homes in the Greenbelt around Hemel Hempstead this is not encouraging development in the centre of the urban area.

Local Allocation: West Hemel Hempstead (South)

This option is forecast as having adverse effects on greenhouse gas emissions and air quality, as the site is located at a distance from shops and facilities, which could increase the need to travel. Walking and cycling may be discouraged due to the topography of the area. Adverse effects have also been forecast for biodiversity, soils, and use of brownfield sites. The site is greenfield within the Greenbelt, and would therefore result in loss or damage of habitats, as well as soil sealing. The option would have a significant visual impact on the landscape of the Bulborne Valley and the nearby Chilterns AONB. The option could also impact on the existing green link between Shrubhill Common and the countryside.

The option is located at a distance from shops and facilities which could discourage walking and cycling, and the topography of the site may discourage these modes. The local health facilities are at capacity, thereby having an adverse effect on health. The option is located near A41 and the railway, which could result in noise levels that could

also affect health and wellbeing. In terms of equality and social exclusion, the option is located at a distance from local facilities, and local health facilities are at capacity, resulting in adverse impacts on this objective.

Positive effects have been forecast against the majority of the social and economic objectives, including housing, sustainable prosperity and growth, and fairer access to services objectives. The option will provide approximately 450 units of housing, including a proportion of affordable housing. The provision of additional housing means there will be more residents in the community, making facilities and shops more viable. This would help support the local economy. However, this option would result in adverse effects on revitalising town centres, as by developing new homes in the Greenbelt around Hemel Hempstead this is not encouraging development in the centre of the urban area.

Local Allocation: Marchmont Farm

This option is forecast as having positive effects on greenhouse gas emissions and air quality, as the site has good access to local facilities which could decrease the need to travel, reducing the level of growth in emissions.

Adverse effects have been forecast for biodiversity, soils, and use of brownfield sites. The site is greenfield within the Greenbelt, and would therefore result in loss or damage of habitats, as well as soil sealing. The option would have a visual impact on the landscape of the Gade Valley and Piccotts End, resulting in adverse impacts for landscape.

The option is located near local facilities, which could encourage walking and cycling, resulting in positive effects on health. This option is considered to be more sustainable than other greenfield sites due to the proximity to the existing link road, schools and local shops.

Positive effects have been forecast against the majority of the social and economic objectives, including housing, sustainable prosperity and growth, fairer access to services objectives. The option will provide approximately 300 units of housing, including a proportion of affordable housing. The provision of additional housing means there will be more residents in the community, making facilities and shops more viable. This would help support the local economy. However, this option would result in adverse effects on revitalise town centres, as by developing new homes in the Greenbelt around Hemel Hempstead this is not encouraging development in the centre of urban areas.

Local Allocation: Old Town

This option is forecast as having positive effects on greenhouse gas emissions and air quality, as the site has good access to local facilities, however walking and cycling may be discouraged due to the topography of the area.

Adverse effects have been forecast for biodiversity, soils, and use of brownfield sites. The site is greenfield and would therefore result in loss or damage of some habitats, as well as soil sealing. The option is located adjacent to the Old Town Conservation Area, and development may have an impact on its setting, resulting in uncertainty of the impact on historic and cultural assets. Development in the Greenbelt at this location would result in some adverse effects on local landscapes and townscape.

The option is located near local facilities, which could encourage walking and cycling, thereby having a positive effect on health, although the topography of the site may discourage these modes.

Positive effects have been forecast against the majority of the social and economic objectives, including the housing, sustainable prosperity and growth, and fairer access to services objectives. The option will provide housing, including a proportion of some affordable housing. The provision of additional housing means there will be more residents in the community making local facilities and shops more viable. This would

help support the local economy. Development at this location close to the town centre supports the objective to focus new development in the centre of urban areas.

7.7.2 Berkhamsted

Spatial Strategy

Negative or uncertain effects are predicted for a number of the environmental objectives, as a result of the level of new housing proposed. Development on greenfield land likely due to the extent of the proposed new housing could have adverse impacts on habitats and species, although the significance of the effect will be dependent on the biodiversity value of the sites to be developed. Housing development on greenfield land will also result in soil loss and soil sealing. New housing will adversely affect the capacity for the waste water treatment work with associated risks relating to poor water quality. In addition, housing development will result in an increase in greenhouse gas emissions, put demands on natural resources, and lead to increased waste generation.

Positive effects have been forecast against the majority of the social and economic objectives. Delivery of the spatial strategy should make the town a more attractive place to live and work by maintaining employment opportunities, providing housing, and protecting the key district shopping and service role of the town centre.

Local Allocation: Land at Lock Field, New Road and Hanburys, Shootersway

In relation to the strategic housing allocations similar adverse effects have been forecast for biodiversity, soils, use of brownfield sites and landscape for the two options, as both of the sites are greenfield, within the Greenbelt and would therefore result in loss of landscape character, loss of habitats and soil sealing. Positive effects have been forecast for both options on the housing, sustainable prosperity and growth, fairer access to services and revitalise town centres objectives. Both of the options will provide housing, including affordable. The provision of additional housing means there will be more residents in the community making facilities and shops more viable and this would help to support the local economy.

With regard to greenhouse gas emissions and air quality, the options are located at a distance from the town centre, which could encourage greater car use thereby leading to increasing emissions. The location of the options and the topography of Berkhamsted has also led to the options being forecast as likely to have adverse effects on health, as active travel such as walking and cycling would be discouraged. Hanburys is located near to the A41 which could result in noise levels that could adversely affect health. Combined positive and adverse effects have been forecast on sustainable locations' and 'equality & social exclusion' for Lock Field as although it is located a distance from the town centre, the sites are close to schools or employment.

Adverse effects have been forecast for Lock Field on historic & cultural assets, as the site is located in an area of archaeological significance and development and could impact upon the setting of the Grand Union Canal. Uncertain effects have been forecast for this option on water quality/quantity, due to the proximity of the site to the canal and potential for polluted run-off entering the water course.

Strategic Site: Land at Durrants Lane/ Shootersway (Egerton Rothesay School)

Upgrading the existing school buildings and providing new homes is forecast as likely to result in a number of adverse environmental effects. The site is partly greenfield and therefore there would be loss of some habitats, as well as some soil sealing or loss. Although the school and housing development is located entirely outside of the Greenbelt, there could however be a visual impact, as it would result in the use of open space for development and playing pitches. The proposed new playing pitches would be located within the Greenbelt but this is an acceptable use under Greenbelt policy.

Providing 200-240 new homes will result in an increase in traffic and increased use of the car, especially due to the distance of the site from the town and the lack of easy

access by public transport. These factors could result in an increase in the level of greenhouse gas emissions and could also result in adverse impacts on air quality.

Adverse effects have been forecast in relation to health, as the site is located at a distance from the town centre, which could discourage walking and cycling. The site is also located near the A41 which could result in noise levels that could affect health and wellbeing. In addition, although there are plans for enhanced sports facilities and playing pitches there are uncertainties with regard to whether local residents would be encouraged to use them.

In relation to the other social objectives, upgrading the school building should improve the quality of the education facility and providing new homes should help to meet local housing needs, including those for affordable housing.

Positive effects have been forecast in relation to the economic objectives. Providing housing means that there is potential for more residents to live in the town, making facilities and shops more viable and this would help to support the local economy and maintain community vibrancy and vitality.

7.7.3 Tring

Spatial Strategy

Negative or uncertain effects are predicted for a number of the environmental objectives, as a result of the level of new housing proposed. Development on greenfield land likely due to the extent of the proposed new housing could have adverse impacts on habitats and species, although the significance of the effect will be dependent on the biodiversity value of the sites to be developed. Housing development on greenfield land will also result in soil loss and soil sealing. New housing will adversely affect the capacity for the waste water treatment work with associated risks relating to poor water quality. In addition, housing development will result in an increase in greenhouse gas emissions, put demands on natural resources, and lead to increased waste generation.

Although development on edge of town could have an adverse effect on local landscapes, leading to some uncertainty in relation to the landscape objective, safeguarding the setting and distinctive nature of Tring and views along the High Street is forecast to have a positive effect. Positive effects are also forecast for historic and cultural assets, as the unique uses of the Zoological Museum and the auction rooms will be safeguarded and the historic High Street will be protected.

Positive effects have been forecast against the majority of the social and economic objectives. Delivery of the spatial strategy should make the town a more attractive place to live and work by maintaining employment opportunities, providing housing, and protecting the key local shopping and service role of the town centre. In addition, extension of the secondary school will help to improve educational provision in the town, and delivery of new open spaces and playing fields could provide opportunities for people to adopt healthier lifestyles.

Local Allocation: Land to the West of Tring, Icknield Way

As development of site would lead to development on greenfield land, within the Greenbelt and close to the Chilterns AONB, adverse effects have been forecast for the biodiversity, soils, use of brownfield sites and landscape & townscape SA objectives. This site is located near to a local centre and is adjacent to the town's main employment area. However it is located 2km from the town centre. This could increase the use of the car to access town centre facilities and services, thereby increasing the growth of greenhouse gas emissions and other emissions to air. There is also uncertainty around the level of out-commuting that may result from building the large number of houses on this site. If this is by car on the A41 there is the potential for increased levels of emissions.

Development of this site would provide for 380 dwellings with the potential for high levels of affordable housing. However, the site is close to the A41, which means noise disturbance could affect the health and well-being of the new residents. Development would allow for open space; however it would not be large enough to fulfil all of the town's leisure space aspirations. Development of this site could involve the provision of some employment space, thereby helping to support the local economy. Also, the new housing on the site should help to support the local services in the town, maintaining their viability and boosting the local economy.

7.7.4 Kings Langley

Spatial Strategy

Negative or uncertain effects are predicted for a number of the environmental objectives, as a result of the level of new housing proposed. Development on greenfield land likely due to the extent of the proposed new housing could have adverse impacts on habitats and species, although the significance of the effect will be dependent on the biodiversity value of the sites to be development. Housing development on greenfield land will also result in soil loss and soil sealing. The spatial strategy requires that new development be consistent with the distinctive character of the village and will respect the key views along the Gade Valley and along the Grand Union Canal. Open space and designated Open Land will be protected and enhanced. However, uncertain effects are forecast on landscape and townscape as a result of potential for development on greenfield land. In addition, housing development will result in an increase in greenhouse gas emissions, put demands on natural resources, and lead to increased waste generation.

As the strategy recognises that the canal is an important part of Kings Langley and that all future development must relate well to the canal corridor positive effects are forecast on water quality and should help to maintain the water dependent wildlife sites in the area.

Positive effects have been forecast against the majority of the social and economic objectives. The village has a relatively high provision of informal open space and this will be protected and possibly enhanced. This could mean that there will be an increase in access for people to undertake recreational activities, thereby promoting healthier lifestyles. Delivery of the spatial strategy should make the village a more attractive place to live and work, by providing housing and maintaining the role shopping and service role of the village centre. However, a number of local businesses are located on potential sites for housing and should this housing proceed these businesses could be lost. Therefore there remains some uncertainty in relation to the sustainable growth and prosperity objective.

7.7.5 Bovington

Spatial Strategy

Negative or uncertain effects are predicted for a number of the environmental objectives as a result of the level of new housing proposed. Development on greenfield land likely due to the extent of the proposed new housing could have adverse impacts on habitats and species, although the significance of the effect will be dependent on the biodiversity value of the sites to be development. Housing development on greenfield land will also result in soil loss and soil sealing. New housing will adversely affect the capacity for the waste water treatment work with associated risks relating to poor water quality. In addition, housing development will result in an increase in greenhouse gas emissions, put demands on natural resources, and lead to increased waste generation. Development on the edge of the village could have an adverse effect on local landscapes; however the strategy is clear that views from the Well will be respected.

Positive effects have been forecast against the majority of the social and economic objectives. Delivery of the spatial strategy should make the village a more attractive place to live and work, by providing housing and maintaining the role shopping and service role of the village centre. Safeguarding Bovingdon Brickworks and HMP The Mount will help to protect local employment opportunities.

Local Allocation: Land to the north of Chesham Road

Development at this greenfield site would have adverse effects on biodiversity as it is located in a high value local wildlife corridor. Adverse effects have also been forecast for soils as a result of soil sealing, landscape & townscape as the site is located within the Greenbelt and air quality and greenhouse gas emissions as the site is located at a distance from the village and separated by a busy road, which could discourage cycling and walking.

Positive effects have been forecast for the majority of the social and economic objectives. The requirement to contribute towards educational and community facilities should have a positive effect on the equality and social exclusion and community identity and participation objectives. Developing this site could also provide a significant level of affordable housing. There is a busy road separating the site from the village centre which may discourage the elderly, disabled people and children from moving around freely in the area.

An adverse effect has been identified in relation to crime as the site is located near the prison which could result in anxiety related to the fear of crime.

7.7.6 Markyate

Spatial Strategy and Strategic Site at Hicks Road

The level of new housing proposed in the village will require some development on greenfield land which could have adverse impacts on habitats and species due to landtake and habitat fragmentation. The significance of the effect will be dependent on the biodiversity value of the sites to be developed. However, the protection and enhancement of Cheverell's Green, as well as the protection of other small scale features of ecological importance, will help to progress the biodiversity objective.

Deculverting the River Ver could improve water quality and result in biodiversity enhancements. However, negative effects are also forecast in relation to water, as the provision of new housing will have capacity implications for the waste water treatment works with associated risks relating to poor water quality downstream of the works. A large area of the Hicks Road site is in flood zones 2 and 3 and there would therefore be flood risk for new developments.

Housing development on greenfield land will result in soil loss and soil sealing. However, development on the Hicks Road site could result in the remediation of any contaminated soils, thereby improving soil quality.

Housing development will result in an increase in greenhouse gas emissions from the new housing and associated activities. In addition, the poor public transport connections in Markyate may result in higher car use to access the regenerated Hicks Road area. However as the site is located in the centre of the village this could encourage cycling and walking rather than use of the car, which would help to reduce the growth in greenhouse gas emissions.

Positive effects have been forecast against the majority of the social and economic objectives. Delivery of the spatial strategy and redeveloping the Hicks Road site should make the village a more attractive place to live and work by providing a range of services, employment and housing. The provision of new public space in the Hicks Road area and an improved environment for pedestrians and cyclists should help to encourage more active lifestyles and a safer environment. It should be noted that the new housing

on the Hicks Road site would be affected by noise from commercial operations, as well as from the nearby A5.

7.7.7 Countryside

Spatial Strategy

Positive effects have been forecast for a number of the environmental objectives as a result of the strategy's aim to protect and enhance biodiversity, tranquillity and key landscape features. The production of Conservation Area Appraisals and use of the Chilterns Buildings Design Guide will help to protect the character and setting of villages. In addition, supporting the retention of village services and facilities will help reduce the need to travel to access day to day needs, thereby having a positive effect on the greenhouse gas emissions objective.

However, the majority of development sites in the countryside will be in greenfield locations and development would therefore result in loss of some areas of habitat and impacts on species and some soil loss and sealing. Village developments could also result in some adverse effects on local landscapes.

A number of positive effects have been identified in relation to the social and economic objectives. The spatial strategy highlights the need for improved cycle routes and footpaths, which could encourage an increase in the number of cyclists. This could give opportunities for healthier lifestyles by providing access for recreational use. The potential for new community facilities and the support for farm diversification should strengthen the vitality of rural communities. Also the strategy recognises that there is a clear need to retain village facilities and services. This will help ensure that the village remains an attractive place in which to live and work and also contributes to providing a sense of community and identity.

Although the strategy allows for proposals which would go part of the way towards meeting local housing needs, particularly those for affordable housing, there will be fewer houses built than if the full housing need from natural population growth were to be accommodated. As a result there is likely to be increased pressure on housing in sought after villages.

Several uncertainties have been identified in relation to the objectives on sustainable prosperity and growth and fairer access to services. Although the strategy supports the development of the rural economy, including farming and green tourism, which should help to provide a range of local employment opportunities, it could also result in those who work in rural areas having to move to towns in order to find suitable affordable housing. The smaller number of houses and the subsequent decrease in predicted overall population of settlements may also mean that local services are no longer viable and are forced to close.

7.8 Implementation and Delivery

7.8.1 Policy: CS34 Infrastructure and Developer Contributions

By requiring the provision/contribution towards physical, social and green infrastructure, positive effects have been forecast for a range of objectives. There could be some environmental enhancements resulting from the provision of green infrastructure as well as benefits to the local communities. Ensuring that new physical infrastructure is provided will help to avoid overloading existing infrastructure such as waste water treatment works, both protecting material assets as well as helping to avoid adverse effects on the natural environment. The provision of social infrastructure will support social objectives, whilst new physical infrastructure will help support the local economy.

7.9 Assessment by SA/SEA Topic Areas

The following section summarises the assessment of the Core Strategy by SA/SEA objectives. This includes the consideration of cumulative, synergistic and secondary effects.

7.9.1 Biodiversity

Policies aimed at concentrating housing and employment development in the urban areas and away from greenfield sites should help to protect, maintain and enhance designated sites and their buffer zones. It should reduce the loss of agricultural land which may have biodiversity value. However, given the level of proposed housing there is likely to be some development of greenfield land which could have adverse impacts on habitats and species due to landtake, habitat fragmentation and urban pollution issues. In addition there could be some possible adverse secondary effects on biodiversity as a result of increased water abstraction. The significance of the effect will be dependent on the biodiversity value of the greenfield land to be developed. In addition, encouraging economic development and the proposed delivery of a new north-eastern relief route could mean additional land take, which could have adverse impacts on habitats and species. Cumulatively there could be adverse effects on biodiversity, depending on the level of housing and other development provided and the sites taken forward.

To counter this, significant positive effects on this objective have been forecast as a result of Policy CS26 which promotes the creation of a network of green infrastructure which should help to enhance biodiversity and could help to achieve BAP targets depending on the habitats created. This policy also supports the conservation and management of important habitats and species by protecting designated sites. Positive effects have also been forecast as a result of Policy CS10 which specifically aims to protect identified wildlife corridors and preserve and enhance green gateways. The objective is further supported by policy CS12 which requires new developments to ensure that important trees are retained, encourages the planting of trees and shrubs, and the incorporation of street trees, living walls and soft landscaping, all of which should all have positive effects on biodiversity.

7.9.2 Water, Flood Risk and Soil

Dacorum Borough is within an area already identified as 'over-abstracted' (Colne CAMS, EA). Providing additional housing will put direct pressure on scarce water resources with the effect is likely to become more significant over time as more dwellings are built and risk of periodic water shortages increase. There is also uncertainty whether the local waste water treatment works will be able to accommodate the levels of proposed growth with any overload of the sewerage system potentially resulting in adverse effects on water quality. Housing growth will also result in greater areas of impermeable surfaces with a corresponding increase in the risk of polluted run-off entering watercourses.

However, significant positive effects on this SA objective have been identified as a result of two policies. Policy CS29 aims to safeguard water supplies, whilst Policy CS31 promotes the efficient use of water in both the construction of, and through the occupancy of, new developments which should also progress this objective and mitigate the potential adverse effects. In addition, minimising emissions of pollutants into the natural environment, i.e. into the ground, atmosphere or water, should have a positive effect on protecting and maintaining water quality.

In relation to flood risk, policies aimed at encouraging development that avoids Flood Zones 2 and 3 and requires Flood Risk Assessments to be submitted with planning applications in these areas should help to progress this SA objective. In addition the requirement for the use of permeable surfaces within urban areas (Policy 29) should also help to reduce flood risk, as could the provision of street trees, living walls and soft landscaping (CS13). Requiring development to enhance green infrastructure could also help to reduce flood risk.

Policies aimed at protecting open spaces and limiting development in the countryside and on open land should help to preserve the natural environment and biodiversity. This could lead to indirect positive effects on soils. However, the level of proposed housing and economic development will result in some soil sealing and soil loss as a result of development on greenfield land.

7.9.3 Climatic Factors and Air Quality

Housing development will result in an increase in greenhouse gas emissions from energy used in new housing and associated activities including increases in traffic. Building a minimum of 9,250 new homes could lead to an increase in green house gas emissions of approximately 53,280 tonnes per annum⁵. In addition, delivering the two higher growth options would require some development in the Greenbelt on the edge of settlements. This could result in increased car use to access town centre services with associated increases in CO₂ emissions, particularly if existing congestion is exacerbated.

However, significant positive effects have been forecast as a result of Policy CS28 which encourages the generation of energy from renewable resources and Policy CS30 which provides funding for energy efficiency improvements in the existing housing stock which should progress this SA objective. In addition, together the various policies which reduce the need to travel, i.e. through focusing development in the main centres, ensuring that all development will be well located and accessible, and supporting a mix of uses for new development, should have positive effects on reducing the growth of greenhouse gas emissions from transport. Policies which aim to reduce private car use and encourage alternative forms of sustainable transport through creating better public transport links and interchanges, providing better pedestrian links and additional cycle lanes could also help to reduce greenhouse gas emissions.

Both positive and negative effects have been described above, however in the absence of detailed modelling of greenhouse gas emissions it is not possible to determine what the overall cumulative effect of implementing the Core Strategy will be in relation to climatic factors.

Transport is a key source of air pollution. Similar to greenhouse gas emissions, focusing housing and economic development in the main settlements and making developments accessible should help to reduce the need to travel and the average distance travelled which should have a positive impact on reducing pollutants from transport. Also, encouraging the use of more sustainable modes of transport such as walking, cycling and passenger transport over the use of private car should have a positive effect on reducing pollutants from transport. Policies aimed at minimising emissions of pollutants should also have a positive effect on local air quality. However, allowing for housing and economic development will contribute to background emissions through an increase in vehicles on the road therefore having an adverse affect on air quality.

7.9.4 Cultural Heritage and Landscape

In the main, positive effects are forecast in relation to both the cultural heritage and landscape objectives. For example, the policies aiming to allow development that supports the existing character of a village and/or surrounding area and respects local character could encourage enhancement or protection of the historic environment, while the policies that protect and enhance the Green Belt, rural area and Chilterns AONB and are compatible with its surroundings should have a positive effect on safeguarding and enhancing landscapes and townscapes. In addition, focusing growth in Hemel Hempstead and restraining growth in the countryside should reduce impacts on the Borough's rural landscapes.

⁵ This is based upon estimated per capita domestic CO₂ emissions of 2.4 tonnes multiplied by the average number of occupants per household in the Borough of 2.4 [Source: Audit Commission Local Area Profile].

Several policies, especially CS10 and CS11, aim to protect or enhance the views and the landscape character of surroundings. Policy CS10 aims to preserve and enhance identified green gateways, having positive impacts on landscape, and policy CS14 should help to protect and enhance townscapes. The good design promoted through these policies should have overall positive effects on this objective.

However, constructing new dwellings is likely to result in some adverse effects on landscapes and townscapes. The effects will be more significant in the long term once brownfield sites have been used up and houses will have to be built on greenfield sites on the edge of settlements. Significant adverse effects have been forecast in relation to developing the largest housing growth option (Option 3 – Natural Growth), as this would require more greenfield sites and additional Greenbelt land to be released with associated adverse effects on local landscapes and the potential for coalescence of settlements. There would also be a loss of tranquillity and increased light pollution in the area affected by the new developments.

Policy CS15 encourages economic development in Employment Areas within the Green Belt which could have adverse impacts on landscape, whilst other economic developments could have a visual impact on the landscape. In addition, the proposed delivery of a new north-eastern relief route could have negative implications on local landscape depending on the route/land take.

7.9.5 Population and Human Health

Although there is some uncertainty as a result of new housing development putting pressure on existing health care facilities, overall positive cumulative effects are forecast in relation to health. The policies aimed at focusing development in Hemel Hempstead and other market towns/large villages and making all development accessible could provide opportunities for physical activity by promoting access to recreation and by providing walkable and cyclable neighbourhoods, thereby encouraging healthy lifestyles. In addition, promoting more sustainable modes of transport and giving priority to healthy forms of transport over the private car should encourage more active travel such as walking and cycling and should also help to improve air quality with associated health benefits.

The housing programme, in particular options 2 and 3, should help to meet local housing need and could therefore help to reduce levels of housing related ill health and low levels of wellbeing (e.g. as a result of overcrowding), while encouraging high quality development, such as that which considers protecting and enhancing significant views, protecting green gateways and promoting open spaces, could help to progress the human health objective as it encourages people to walk and cycle, which has positive implications for this objective. In addition, encouraging services and facilities to be provided for the community, including recreational facilities, as well as health services, would have a positive impact on this objective.

7.9.6 Equity, Housing, Communities and Crime

In general positive effects have been forecast in relation to the social factors, concerning equity, housing, community identity and crime. Providing a minimum of 9,250 new homes should help to progress the housing objective by increasing the number of houses available and therefore meeting local housing needs, particularly the need for affordable homes and a mix of family homes. Significant positive effects have been forecast in relation to the largest housing growth option (Option 3 – Natural Growth), as this would provide the greatest opportunity for meeting local need, while adverse effects have been forecast for the smallest growth option. Significant positive effects have also been identified as a result of policies to provide a mix of different types of homes and to allow for proposals which would help meet local housing needs, particularly those for affordable housing, and help maintain the viability of rural communities.

Apart from a number of uncertainties in relation to the housing programme resulting from the potential for pressure to be put on existing facilities, positive effects have been forecast in relation to the SA objective on community identity and participation. For example, enhancing neighbourhood service provision in local centres should help to improve access to community services thereby making areas more attractive places to live, and development that respects local character should help maintain local identity. Policy CS23 Social Infrastructure encourages services and facilities to be provided for the community, which should enhance the community identity and thus have a significant positive effect on this objective.

A number of significant positive effects for the objective on equity and social exclusion have been forecast. Developing the largest housing growth option (Option 3 – Natural Growth) would result in approximately 570 new dwellings being provided in the villages and countryside of Dacorum which would meet the natural population growth needs. The higher levels of affordable housing under this option will allow a larger number of people to remain living in their local area. In addition, the larger number of houses should also help to make local facilities more viable, thereby preventing them from closing which would be particularly to the detriment of the more vulnerable members of the community (e.g. the elderly). It is important to note however that higher levels of growth will put pressure on local infrastructure, particularly schools, many of which are already under pressure.

No issues have been identified in relation to the Core Strategy potentially discriminating on the basis of disability, gender or ethnic minority. The provision of affordable housing, employment opportunities and community services will not necessarily benefit particular groups but should ensure increased access and opportunities for all.

Significant positive effects have also been forecast in relation to policies which promote a mix of housing types and also those that require a minimum of 75% of the affordable housing units to be for social rent helping to meet the needs of the more disadvantaged sections of society and the provision of housing for those with special needs.

7.9.7 Economic Factors

The strategy is forecast to have a positive cumulative effect on economic factors, including sustainable prosperity, fairer access to services and revitalising town centres. Providing for economic growth in Hemel Hempstead should help to develop the local economy, leading to the provision of employment opportunities close to the major residential areas in the Borough and should contribute to improving the viability and vitality of the town centre. Significant positive effects have been forecast for the sustainable prosperity and growth objective in relation to the set of policies on economic development. Limiting the level of development in the market towns and large villages will help to maintain Hemel Hempstead as the key centre in the Borough and not undermine its key service role. While, improving neighbourhood service provision should promote the role of local centres.

Providing efficient and accessible transport is essential in promoting economic growth and will therefore aid sustainable prosperity and growth. For example, the proposed delivery of a new north-eastern relief route could improve the access to services and facilities. Achieving a reduction in urban congestion will also help to make the town centre a more attractive place to visit, aiding the revitalisation of the town centre. In addition, promoting the use of sustainable modes of transport could improve access to employment for those without access to a private vehicle.

The policies aimed at improving the public realm should attract people to the area, and thus help to improve the local economy. The high quality design of settlements could also have indirect positive effects on the local economy through the encouragement of new businesses to start up in these areas.

Two adverse effects have been forecast for option 1 of the housing programme. The lower levels of housing that would be delivered under this option could hamper the delivery of new jobs to the Borough. Also a lack of suitable housing for employees could result in potential incoming businesses seeking to locate elsewhere in the region where there is a better supply of new housing. This would affect the viability of plans to revitalise the Borough's economy, particularly in respect to the Maylands Gateway. In addition, the lower number of new dwellings provided under this option will limit the opportunities for people to stay living in the area and benefit from the planned expansion of jobs in the Borough and reduce the potential for new services and facilities to be developed that would be a benefit for all sectors of the community.

7.10 Cross Boundary Effects

Any housing and economic growth could have an effect on neighbouring areas through an increase in traffic and associated environmental and social impacts. Housing and employment development, particularly in the east of Hemel Hempstead could have an effect on St Albans. It should be noted that any housing development on the western edge of St Albans could have similar effects on Hemel Hempstead. It should be noted that any housing development proposed in St Albans District, on the eastern edge of Hemel Hempstead, will be formally assessed through the SA/SEA being undertaken on the St Albans LDF. The SA of the St Albans LDF is being undertaken using the same methodology as for the Dacorum LDF SA and as appropriate the findings of the SA on the St Albans LDF and any cross boundary effects will be considered within the SA of the Dacorum LDF.

Increasing employment opportunities, particularly in Hemel Hempstead, may provide jobs for communities located outside of the Borough.

Due to the inter-connected nature of the water environment with links many rivers, streams and groundwater, any negative effects on water resources could be felt in the surrounding areas.

7.11 Inter-relationships

The SEA topics cannot be considered in isolation from one another, as there are a variety of inter-relationships that exist. Air quality is a topic which cuts across most of the other SEA topics, with proven links between air quality and human health (respiratory problems). It can also have indirect effects on biodiversity, soil and water quality, and the condition of heritage assets, whilst there is a more direct link between traffic emission causing poor air quality and the emissions of CO₂.

The development of sites (residential, employment, shopping etc) may show inter-related effects on criteria such as biodiversity, air quality, greenhouse gas emissions, landscape and townscape depending on where they are located, how the development takes shape/is designed, and how it is accessed.

Positive effects can also occur from inter-relationships, for example, protecting landscape quality and/or soil, may lead to habitats and species being indirectly protected.

7.12 Difficulties encountered in undertaking the assessment

Although a range of local and regional information and studies were available to inform the assessment process, due to the strategic nature of the policies and insufficient information at a detailed site level, some effects were recorded as uncertain. These uncertainties are likely to be reduced as more detail is provided to the Local Development Framework through the Site Allocations DPD.

8 Mitigation and Recommendations

8.1 Background

A key role of the SA/SEA is to provide recommendations as to how the sustainability performance of a plan can be improved. The Core Strategy includes a range of policies that seek to prevent and where possible enhance the environment and overall sustainability of development. The SA/SEA has built on this by identifying a range of recommendation as to how the Core Strategy can maximise its performance against the range of sustainability topics. Some of these recommendations seek to mitigate potential adverse effects, whilst others look to build on some of the opportunities that are provided by the Borough's natural environment.

Whilst undertaking the SA assessment of the Working Draft Core Strategy in July 2010 a number of specific recommendations, were suggested to DBC. The majority of these recommendations were taken on board as the Core Strategy developed into its current form. These are summarised in Table 8.1.

Table 8-1: Policy Related Recommendations

Location	Recommendation	Action Taken
Borough Vision	Cross refer to local visions and their role.	Actioned.
Strategic Objectives	Include a new / amended objective to cover the issues of healthy communities.	Actioned.
Policy CS3	Refer to strategic sites under the delivery section.	Actioned.
Policy CS6	Amend the policy title for clarity.	Actioned.
Para 9.3	Add reference to reducing the need to travel (by both car and non-car modes).	Actioned.
Policy CS8	Check wording of clause (c) for clarity. This should relate to the linking of different transport modes.	Actioned.
Policy CS10	Clause (g) – refer to 'protect and enhance.'	Actioned.
Policy CS12	Amend the location of the word 'and' as this clarifies that all clauses must be met.	Actioned.
Para 11.12	Add a brief reference to the role of telecommunications, the internet etc.	Actioned.
Policy CS14	Add supporting text to justify the jobs target in the light of the lower levels of housing growth now proposed.	Actioned.
Table 7	Provide greater clarity within the document regarding the differences between the two housing options and their implications for different places.	Actioned.
Para 16.7	Delete the words 'if they are not in the vicinity of new housing development.'	Actioned.
Para 17.14	Delete 'and Habitat Regulations Assessment issues.'	Actioned.
Policy CS28	Amend wording to better reflect available evidence and the loss of the Regional Spatial Strategy policy.	Actioned.
Policy CS29	Refer to 'impermeable' rather than 'hard' surfaces.	Actioned.
Para 19.36	Refer to any strategic waste sites that may be planned. Refer to minerals and waste safeguarding areas.	Actioned.
Policy CS31	Refer to 'impermeable' rather than 'hard' surfaces. Check that the text does not repeat national policy.	Actioned.

	Amend clause (e) to refer to 'Groundwater Source Protection Zones.'	
Policy CS32	Ensure policy covers air quality in areas that aren't AQMAs, but are borderline. Amend final paragraph to read 'Any development proposal which would cause harm from a significant increase in pollution.....' Check that supporting text covers hazardous substances.	Actioned.
Introduction to Place Strategies	Common local objectives – clarify tenth bullet point. Access to what? Explain how the indicative targets for each place have been derived for the two housing options and how they relate to the housing programme.	Actioned.
Hemel Hempstead Place Strategy	Check the vision for clarity i.e. who is it we are intending to entice? Visitors or new businesses? Clarify figures in the local objectives.	Actioned.
Policy CS8 (b)	Consider whether the reference to Policy CS29 is appropriate.	Delete reference.
Policy CS8	Consider whether a requirement for green travel plans for large development schemes should be referred to,	Include the reference in delivery section.
Policy CS8	Consider how infrastructure for cycling can be incorporated into new development.	Noted. No change is necessary.
Policy CS12	Consider referring to "Secured by Design" to complement Policies CS11 and CS13.	Add security to the list of factors in the policy.
Policy CS15	Clarify meaning of the second paragraph (referring to the employment land supply being maintained).	Delete paragraph.
Policy CS16	Strengthen policy to refer to good public transport accessibility. It is assumed rather than stated that by locating retail development in town centres it would be close to public transport routes.	Noted. No change is necessary to the policy. However the sequential approach referred to in the policy can be expanded to cover accessibility.
Policy CS33	Consider measures to 'lock in' the benefits of reduced traffic such as pedestrianisation and demand management.	Noted. No change is necessary to the policy. However the Town Centre Master Plan should consider appropriate traffic management (which is referred to in the policy) further.

8.2 SA/SEA influence on the development of the Core Strategy

To date the SA/SEA had had a range of influences on the development of the Core Strategy. Close liaison between the planning officers and SA/SEA consultants has meant that the SA/SEA has provided input at many stages during the development of the Core Strategy.

When the Core Strategy is adopted it will be accompanied by an SEA Adoption Statement which will need to describe how the Core Strategy has been influenced by the SA/SEA. Influences to date include the following:

- A Scoping Workshop attended by a wide range of stakeholders provided a useful forum for discussing environmental and other sustainability issues and how the LDF could respond to these issues. The workshop also helped in determining the scope of the SA/SEA;
- Production of the SA/SEA Scoping Report identified issues that the Core Strategy will need to help address. The information within the Scoping Report will also contribute to the LDF evidence base;
- Provision on input into the development of the Core Strategy objectives;
- Assessment of the Issues and Options and other emerging policy documents, which assisted in the process of formulating the Draft Core Strategy;
- Provision of ongoing input in relation to the development of the Core Strategy and its detailed policies and strategic allocations;
- Providing input during the development of the methodology for assessing strategic development locations and sites; and
- Assessment of the Draft Core Strategy and providing recommendations for additions and changes.

9 Monitoring

9.1 Introduction

The SEA Directive requires that the significant environmental effects of implementing a plan are monitored so that appropriate remedial actions can be taken if required.

The monitoring put in place needs to fulfil the following requirements:

- To monitor the significant effects of the plan;
- To monitor any unforeseen effects of the plan;
- To ensure that action can be taken to reduce / offset the significant effects of the plan; and
- To provide baseline data for the next SEA and to provide a picture of how the environment / sustainability criteria of the area are evolving.

9.2 Monitoring Measures

The monitoring requirements typically associated with the SA/SEA process are recognised as placing heavy demands on authorities with SA/SEA responsibilities. For this reason, it is proposed that the monitoring framework will focus on those aspects of the environment that are likely to be significantly impacted upon, or where the impact is uncertain.

The assessment identified one significant adverse effect on the Landscape and Townscape objective. However this was in relation to the Natural Growth Option (Option 3) which was the high growth option that was included in the assessment, but which does not form part of the Draft Core Strategy.

Additionally, it identified significant positive effects against the following objectives which will need to be monitored:

- Biodiversity in relation to Policies CS24 The Chilterns Area of Outstanding Natural Beauty; CS25 Landscape Character; CS26 Green Infrastructure; CS27 Quality of the Historic Environment.
- Water Quality/Quantity in relation to Policies CS28 Carbon Reduction Emissions; CS29 Sustainable Design and Construction; CS30 Carbon Offset Fund; CS31 Water Management; CS32 Air, Soil, Water.
- Greenhouse Gas Emissions in relation to Policies CS28 Carbon Reduction Emissions; CS29 Sustainable Design and Construction; CS30 Carbon Offset Fund; CS31 Water Management; CS32 Air, Soil, Water.
- Use of Brownfield Sites in relation to Policies CS28 Carbon Reduction Emissions; CS29 Sustainable Design and Construction; CS30 Carbon Offset Fund; CS31 Water Management; CS32 Air, Soil, Water.
- Resource Efficiency in relation to Policies CS28 Carbon Reduction Emissions; CS29 Sustainable Design and Construction; CS30 Carbon Offset Fund; CS31 Water Management; CS32 Air, Soil, Water.
- Historic and Cultural Assets in relation to Policies CS24 The Chilterns Area of Outstanding Natural Beauty; CS25 Landscape Character; CS26 Green Infrastructure; CS27 Quality of the Historic Environment.
- Landscape & Townscape in relation to Policies CS24 The Chilterns Area of Outstanding Natural Beauty; CS25 Landscape Character; CS26 Green Infrastructure; CS27 Quality of the Historic Environment.
- Equality & Social Exclusion in relation to Policies CS17 Housing Programme (Option 3); CS18 Mix of Housing; CS19 Affordable Housing; CS20 Rural Exception

Sites; CS21 Existing Accommodation for Travelling Communities; CS21 New Accommodation for Gypsies and Travellers.

- Good Quality Housing in relation to Policies CS18 Mix of Housing; CS19 Affordable Housing; CS20 Rural Exception Sites.
- Community Identity & Participation in relation to Policy CS23 Social Infrastructure.
- Sustainable Prosperity in relation to Policies CS14 Economic Development; CS15 Offices, Research, Industry, Storage and Distribution; and CS16 Shops and Commerce.

Potential monitoring indicators for each of the SA objectives are included in the SA Framework in Appendix C. In addition, within the draft Core Strategy monitoring indicators are proposed for each of the policies which could also address the monitoring requirements of the SA.

At this stage of the process it is considered too early to propose the measures that are to be taken forward. A draft monitoring framework will be proposed in the Sustainability Report to accompany to the Submission Core Strategy. The final monitoring plan will be published in the SA/SEA Statement, alongside the adopted Core Strategy.

10 Next Steps

10.1 Consultation on the SA Report

The SEA Regulations set specific requirements for consultation with the Statutory Environmental Bodies, the public and other interested parties (these could include NGO's, and community groups for example). This SA Report will be published for consultation alongside the Draft Core Strategy and will be made available to all these parties so that they can provide a response to the contents of the Draft Core Strategy and the accompanying SA Report.

Copies of the SA documents can be found on the Council's website www.dacorum.gov.uk/planning, at local libraries or at Borough Council Offices subject to opening times.

Comments on the SA Report should be sent in writing to:

By email: spatial.planning@dacorum.gov.uk

By post: Spatial Planning Team
Strategic Planning and Regeneration
Dacorum Borough Council
Civic Centre
Marlowes
Hemel Hempstead
Hertfordshire
HP1 1HH

By fax: 01442 228771

Responses must be received by **5.15pm on Wednesday 15th December**.

All comments received will be publicly available. When the consultation period has finished, the comments received will be considered during the next stage of the SA/SEA process.

10.2 Submission and Examination

Following the end of the consultation, the SA will need to assess any substantive changes made to the Core Strategy as it moves forward to Publication stage and is then finalised prior to Submission.

The SA Report prepared at the Submission Stage will be submitted alongside the Core Strategy and other supporting documentation when it is submitted for an independent examination to be undertaken by a planning inspector.

10.3 SA/SEA Adoption Statement

When the Core Strategy is adopted it will be accompanied by a SA/SEA Statement.

In line with the SEA Regulations, the SA/SEA Statement will provide the following information:

- How environmental considerations have been integrated into the plan;
- How the SA Report has been taken into account;
- How opinions expressed in relation to the consultations on the plan/ programme and SA Report have been taken into account;
- The reasons for choosing the plan or programme 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 effects of the implementation of the plan or programme.

10.4 Post Adoption

Following the adoption of the Core Strategy there will be a need to undertake SA/SEA monitoring of the significant effects identified. It is envisaged that this monitoring will take place alongside the monitoring of the Local Development Framework and be published as part of the Annual Monitoring Report for the LDF which will be the responsibility of Dacorum Borough Council.

Glossary of terms and abbreviations

AA	Appropriate Assessment is part of the HRA process.
Alternatives	These are different ways of achieving the plan objectives. Also referred to as options.
AONB	Area of Outstanding Natural Beauty. A landscape area of high natural beauty which has special status, and within which major development will not be permitted, unless there are exceptional circumstances. Designated under the 1949 National Parks and Access to the Countryside Act.
AQMA	Air Quality Management Area. An area identified by local authorities where statutory UK air quality standards are being, or are expected to be breached up to the end of 2005.
BREEAM	Building Research Establishment's Environmental Assessment Method.
C4S	Centre for Sustainability.
CFMP	Catchment Flood Management Plans.
Conservation Area	An area designated under the Planning (Listed Buildings And Conservation Areas) Act 1990 as being of special architectural or historic interest, the character and interest of which it is desirable to preserve and enhance.
Cumulative Effects	The effects that result from changes caused by a project, plan, programme or policy in association with other past, present or reasonably foreseeable future plans and actions. Cumulative effects are specifically noted in the SEA Directive in order to emphasize the need for broad and comprehensive information regarding the effects.
DCLG	Department for communities and local government, formerly the ODPM.
EC	European Commission.
GHA	Global hectares.
GHG	Greenhouse Gas.
HRA	Habitat Regulations Assessment. Required to identify likely impacts on Natura 2000 sites.
Indicator	A means by which change in a system or to an objective can be measured.
LBAP	Local Biodiversity Action Plan.
LDF	Local Development Framework.
LSOA	Lower Super Output Area
Mitigation	Measures to avoid, reduce or offset the significant adverse effects of the plan on sustainability.
Monitoring	Activities undertaken after the decision is made to adopt the plan or programme to examine its implementation. For example, monitoring to examine whether the significant sustainability effects occur as predicted or to establish whether mitigation measures are implemented.

Natura 2000 Sites (N2K)	Natura 2000 is the European Union-wide network of nature conservation sites to be established under the Council Directive on the conservation of natural habitats and of wild fauna and flora (92/43/EEC) – The EC Habitats Directive (on Europa website). Natura 2000 comprises Special Areas of Conservation (SACs) designated under that Directive and Special Protection Areas (SPAs) classified under the Council Directive on the conservation of wild birds (79/409/EEC) – The EC Wild Birds Directive.
NTS	Non Technical Summary
Objective	A statement of what is intended, specifying the desired direction of change.
ODPM	Office of the Deputy Prime Minister, now the DCLG.
Options	See Alternatives.
PPP	Plans, Policies and Programmes.
SA	Sustainability Appraisal. A form of assessment used in the UK (primarily for Regional Planning Guidance and development plans) since the late 1990s. Sustainability Appraisal considers social and economic effects as well as environmental effects.
SAC	Special Area of Conservation as designated under the European Union Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora.
SAM	Scheduled Ancient Monument. A nationally important archaeological site included in the Schedule of Ancient Monuments maintained by the Secretary of State for the Environment under the Ancient Monuments and Archaeological Areas Act 1979.
Scoping	The process of deciding the scope and level of detail of the SEA. This also includes defining the environmental / sustainability effects and alternatives that need to be considered, the assessment methods to be used, the structure and contents of the Environmental / Sustainability Report.
Screening	The process of deciding whether a plan or programme requires SEA or an appropriate assessment.
SEA	Strategic Environmental Assessment. A systematic method of considering the likely effects on the environment of policies, plans and programmes.
SEA Directive	Directive 2001/42/EC "on the assessment of the effects of certain plans and programmes on the environment".
SPZ	Source Protection Zones.
SSSI	Site of Special Scientific Interest. The best sites for wildlife and geological features in England as designated under the Wildlife and Countryside Act 1981.
SUDS	Sustainable Drainage Systems.
Target	A specified desired end, stated usually within a specified time-scale.
UN	United Nations.