



Dacorum Local Planning Framework: Site Allocations DPD
Sustainability Appraisal of the Pre Submission DPD

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Dacorum Local Planning Framework: Site Allocations DPD

Sustainability Appraisal of the Pre Submission DPD

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Prepared for: Dacorum Borough Council, Strategic Planning and Regeneration

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1 Introduction

1.1 Background

The Site Allocations is the second of the documents that will make up Dacorum's new Local Plan. The first of the documents, the Core Strategy, was adopted in September 2013. The local plan is the collective name for a series of documents (known as Development Plan Documents or DPDs) that together will guide future development.

The principal role of the Site Allocations is to set the Council's detailed proposals and requirements for particular sites and areas. It allocates sites for future development in the Borough; defines the boundaries of planning designations; and ensures appropriate infrastructure is identified and delivered alongside new development.

All the DPDs that make up the Local Plan 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 Site Allocations 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 and SEA Environmental Report which meets the regulatory requirements for SA and SEA and which will be published alongside the plan. For simplicity this report is referred to as the SA Report.

SA/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 should ensure that the environmental, social, and economic implications are fully integrated into emerging policies and strategies.

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.

1.1.1 Purpose of this Sustainability Report

The SEA regulations require that the sustainability appraisal results of the Pre-Submission Draft shall be consulted with statutory bodies and with members of the public to obtain their views prior to adoption of the Site Allocations DPD. In addition to declaring results of the assessment, the SA Report proposes mitigation measures/recommendations to enhance sustainability features of the Site Allocations DPD, as well as proposing a monitoring framework for all significant sustainability issues identified

during the assessment. This report, together with any necessary updates, will accompany the Submission version of the DPD and will be taken forward for submission to the Secretary of State.

1.2 Methodology

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

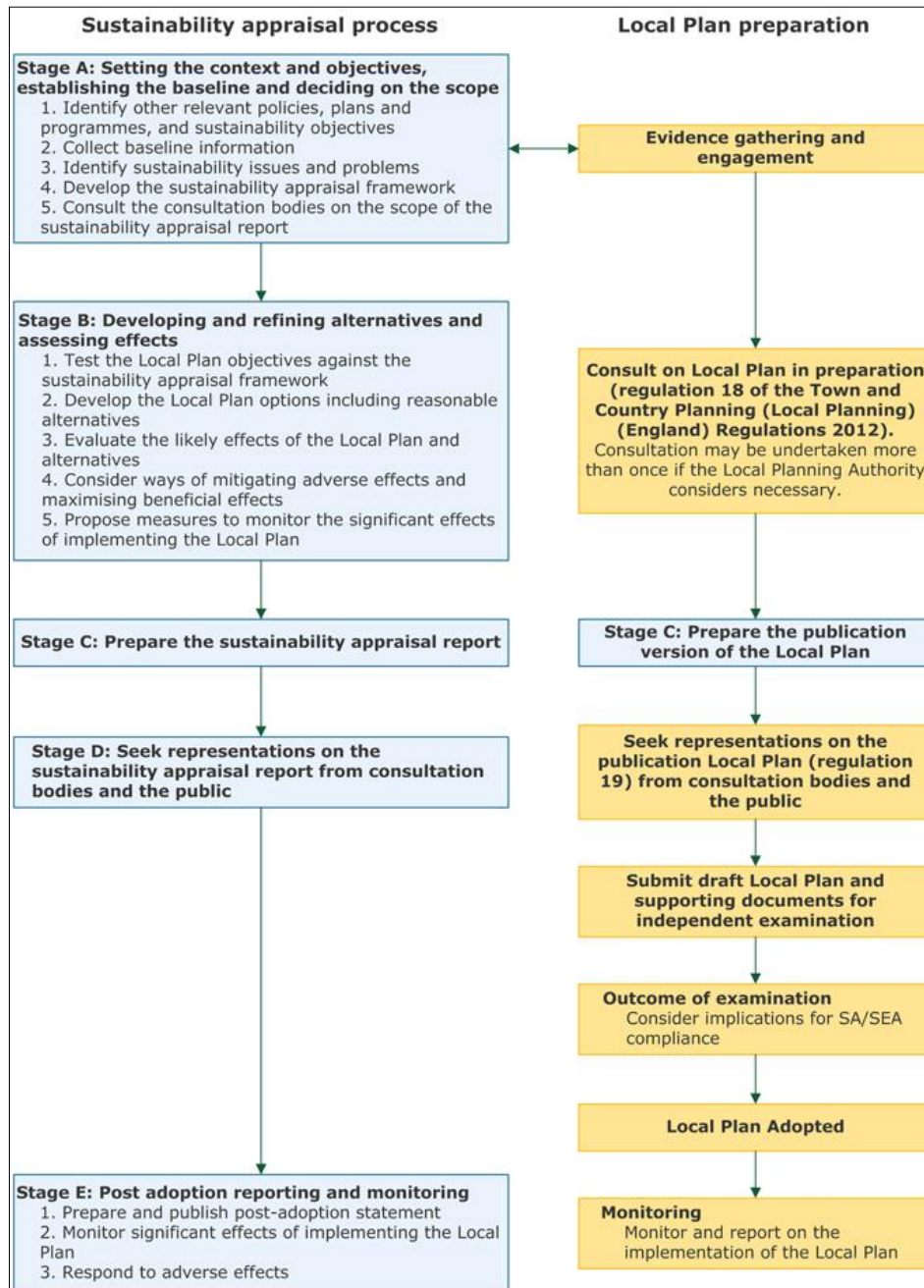


Figure 1-1: The DPD and SA/SEA process (Source: UK Government Planning Practice Guidance, 2014)¹

¹ http://planningguidance.planningportal.gov.uk/blog/guidance/strategic-environmental-assessment-and-sustainability-appraisal/sustainability-appraisal-requirements-for-local-plans/#paragraph_013

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 Site Allocations DPD

Dacorum Core Strategy DPD	SA/SEA Stages	Dates
Begin document preparation	<p>Stage A: Setting the context, establishing the baseline and deciding on the scope.</p> <p>A1: Identify other relevant policies, plans and document programmes, and sustainability objectives.</p> <p>A2: Collecting baseline information.</p> <p>A3: Identifying sustainability issues and problems.</p> <p>A4: Developing the SA framework.</p> <p>A5: Consulting on the scope of the SA (Scoping Report).</p>	<p>SA Scoping Report, prepared February 2006.</p> <p>Consultation on Scoping Report February 2006.</p>
<p>Preparation of Issues and Options (I&O) paper and consultation</p> <p>Preparation of preferred options, including consultation on possible preferred option</p>	<p>Stage B: Developing and refining options and assessing of effects.</p> <p>B1: Testing the DPD objectives against the SA framework.</p> <p>B2: Developing the DPD options.</p> <p>B3: Predicting the effects of the DPD.</p> <p>B4: Evaluating the effects of the DPD.</p> <p>B5: Considering ways of mitigating adverse effects preferred and maximising beneficial effects.</p> <p>B6: Proposing measures to monitor the significant effects of implementing the DPDs.</p>	<p>Preparation of SA Working Note on Issues and Options December 2006. Consultation on the SA Working Note, alongside the Site Allocations Issues Paper November 2006 – February 2007.</p> <p>Preparation of SA Working Note on Supplementary Issues and Options October 2008. Consultation on the SA Working Note, alongside the Site Allocations Supplementary Issues Paper November 2008 – December 2008.</p> <p>Preparation of SA Working Note on Supplementary Schedule of Site Appraisals April 2014.</p>
Public consultation on Preferred options	<p>Stage C: Preparing the Sustainability Appraisal Report.</p> <p>C1: Preparing the SA Report.</p> <hr/> <p>Stage D: Consulting on the preferred options of the DPD and SA Report.</p> <p>D1: Public participation on the preferred options of the DPD and the SA Report.</p> <p>D2 (i) Appraising significant changes.</p> <p>D2 (ii) Appraising significant changes resulting from representations.</p> <p>D3: Making decisions and providing Information.</p>	This SA Report.
Submission of DPD to Secretary of State	<p>Stage E: Monitoring the significant effects of implementing the DPD.</p> <p>E1: Finalising aims and methods for monitoring.</p> <p>E2: Responding to adverse effects.</p> <p>Preparing the SEA Statement.²</p>	

1.3 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)
Chapters 2 and 3	Outline of contents, main objectives of the plan, and relationship with other relevant plans and programmes.
Chapter 3	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.
Chapters 3 and 4	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 and 6, Appendix A	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, synergistic, temporal and severity details.
Chapter 6, Appendix A	Mitigation measures to offset any identified significant effect.
Chapters 5 and 6	Outline of reasons (through SA) for selecting alternatives (Initial Options) and documentation of difficulties encountered in the assessment.
Chapter 7	Description of monitoring arrangements proposed.
Non-Technical Summary document	Non-technical summary of information under all the above headings.
Chapter 1	Consultation – results of the consultation of the previous working notes.

1.4 Consultation

The SEA Directive requires consultation of documents at various stages of the SA process, as indicated in Table 1-1. To date consultation has occurred at several stages as outlined below.

The first round of consultation was undertaken at the end of the scoping stage in 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 responded, along with a summary of the comments received and how they have been addressed are included in Appendix D of the SA Report (September 2011).

Consultation was then carried out on the Issues and Options SA Working Notes (in 2006 and November 2008), alongside the consultation on the Site Allocations Issues Papers. No responses were received that directly related to the SA. This SA Report forms the formal public consultation on the SA of the Site Allocations DPD.

In addition, much consultation occurred on the SA of the Core Strategy during the plan's development from 2005 until its adoption in 2013. All of the consultation comments received on the SA of the Core Strategy were taken into account when undertaking the SA of the Site Allocations DPD.

1.5 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).

1.6 Habitats Regulations Assessment

1.6.1 Introduction

Habitats Regulations Assessment needs to be undertaken on certain plans or projects to determine whether they have significant effects on sites designated for their nature conservation importance. The DPDs that make up Dacorum's new Local Plan fall into this category.

1.6.2 Initial Assessment

In November 2007, a draft Screening Report was prepared to inform the Appropriate Assessment as part of Habitat Regulations Assessment (HRA). This report was finalised in April 2008. 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. This screening report was finalised in April 2008.

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 Chilterns Beechwoods SAC, when discussing designated areas would assist in the SAC's protection. 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). However overall, the Issues and Options were not found to lead to any significant effects and it was not considered necessary to undertake a full Appropriate Assessment on the Dacorum Core Strategy Issues and Options.

1.6.3 Updated Core Strategy assessment

Changes were made to the Core Strategy after the initial HRA work was undertaken in 2008 and therefore the HRA was revisited to ascertain whether the original assessment and conclusions still stood or whether they needed to be revised.

The revised assessment found no significant effects on Chilterns Beechwoods SAC from individual developments as a result of either air pollution or recreation disturbance. However, these impacts were examined in more detail and updated avoidance and mitigation measures for both impacts were provided in order to ensure there are no cumulative significant impacts on the SAC due to development proposed around Hemel Hempstead and also in the wider region. Natural England agreed with the conclusions of the HRA and the avoidance and mitigation measures proposed.

1.6.4 Implications of Site Allocations DPD

Whilst the Site Allocations DPD provides a greater level of detail to the location of development to that which was included in the Core Strategy, it does not put forward any sites that are of a scale and/or location that will alter the findings of the previous HRA.

2 Dacorum Site Allocations

2.1 Introduction

Site Allocations is the second of the documents that will make up the Borough's new local plan. The first of the documents, the Core Strategy, was adopted in 2013. The Core Strategy sets out the planning framework for guiding the location and level of development within the Borough over the next 20 years. It provides the context for the more detailed policies, and the site specific proposals contained within this Site Allocations document, and other subsequent planning documents.

The principal role of the Site Allocations is to set the Council's detailed proposals and requirements for particular sites and areas. It:

- Allocates sites for future development in the Borough;
- Defines the boundaries of planning designations; and
- Ensures appropriate infrastructure is identified and delivered alongside new development.

It should be noted that the Site Allocations excludes consideration of allocations and land designations within the area covered by the East Hemel Hempstead Area Action Plan. However, where the APP contains important sites, there are cross-referenced to within the supporting text to ensure a comprehensive picture of sites and designations is provided within the Borough.

2.2 Structure and content of Site Allocations

The structure and content of the Site Allocations DPD broadly reflects that of the Core Strategy. The Strategic Objectives from the Core Strategy are repeated at the beginning of each section. The content of the Core Strategy is not repeated, although necessary cross-references are made.

The Site Allocations DPD includes sections that cover the following topics:

- **Promoting Sustainable Development:**
 - Schedule of Major Developed Sites
 - Schedule of Mixed Use Proposals and Sites
 - Schedule of Transport Proposals and Sites
- **Strengthening Economic Prosperity**
 - Schedule of Employment Proposals and Sites
- **Supporting Retailing and Commerce**
 - Schedule of Retail Proposals and Sites
- **Providing Homes**
 - Schedule of Housing Proposals and Sites
- **Meeting Community Needs**
 - Schedule of Social and Community Proposals and Sites
 - Schedule of Social and Community Proposals and Sites

3 Environmental and Sustainability Planning Context

3.1 Introduction

In order to ensure that the Sustainability Appraisal encompasses the key sustainability issues relevant to the Borough in the context of the development plan system, the SA process is required to develop an understanding of 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

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 (Site Allocations DPD) 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 the Core Strategy SA undertook a review of the relevant plans, policies and programmes (referred to here as the 'PPP review') to identify sustainability objectives which may provide constraints or synergies with the plan being formulated. The PPP review covered international conventions and EU policies through to local plans and strategies.

A detailed PPP review was presented in the Scoping Report and was updated at both the Pre-Submission and Submission stages of the Core Strategy to take account of relevant new policies, strategies and guidance.

Appendix A of the Core Strategy Pre-Submission SA Report (September 2011) and Appendix 1 of the SA Report Addendum (June 2012) present the findings of the review. These are both available at the following link:

<http://www.dacorum.gov.uk/home/planning-development/planning-strategic-planning/local-planning-framework/sustainability-appraisals>

3.2.1 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 key planning policy/guidance document which guides development is the National Planning Policy Framework (NPPF). This came into force in 2012 and replaced the wide range of Planning Policy Guidance and Planning Policy Statements.

In the wider context of the Local Plan, 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. As a 'delivery document' for the Core Strategy the same applies to the Site Allocations DPD, albeit at a more area specific level.

The key document that provides the objectives and strategic direction for the Site Allocations DPD is the Core Strategy itself. This provides the Vision, Strategic Objectives and Spatial Strategy for Dacorum for the period 2011 to 2031. It also contains the planning policies and strategic and local site allocations that are needed to achieve the strategy's objectives.

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 so that these are taken into consideration during the plan making process. 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 Local Plan.

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.

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 information was updated during the development of the Core Strategy SA Report (September 2011) and was included as Appendix B of that SA Report. This is available at the following link:

<http://www.dacorum.gov.uk/home/planning-development/planning-strategic-planning/local-planning-framework/sustainability-appraisals>

In addition, some more recent Borough wide baseline information has been included during the appraisal of the Site Allocations DPD. This is provided in Table 3-1 below.

In addition to the Borough wide baseline information, the SA of the Site Allocations DPD has also considered baseline information specific to the local areas where site allocations have been proposed. This has included information on a variety of topics, including amongst others: wildlife designations, flood risk, heritage assets, air quality, proximity to

public transport and services and the current condition and use of the site. This information has been provided for each allocation by the Dacorum BC Schedules of Site Appraisals and by detailed analysis using GIS.

3.4 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 and subsequent rounds of consultation on the Sustainability Appraisal.

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 3-1 provides 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 3-1: Table of Issues and Opportunities

SEA Objective	Key Issue	Opportunities	Interrelationships
Air	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 were declared in 2012 at Lawn Lane, Hemel Hempstead; London Road, Apsley; and High Street, Northchurch. In March 2013 it was recommended that the Northchurch AQMA be extended.	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.	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.
Biodiversity	Dacorum contains one Special Area of Conservation (SAC) under the EC Habitats Directive: Chilterns Beechwoods 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. There are three Local Nature Reserves in Dacorum: <ul style="list-style-type: none"> • Howe Grove Wood (8 ha); • Long Deans and, • Shrubhill Common (11 ha). The Borough has 231 local wildlife sites covering over 2,000ha.	Create new, and improve existing habitats, Green Infrastructure. Compensation for features lost to development where loss is completely unavoidable. Protection of existing networks of natural habitats including buffer areas, migration routes, stepping stones and landscape features of major importance for wildlife. Restoration of existing habitats and landscape features which could potentially be of major importance for wildlife. Linking and connecting isolated and fragmented habitats, important species populations and landscape features through creation of wildlife corridor (greenway) networks. LDF to promote the use of management agreements for designated sites, where this can be linked to development.	A healthy natural environment improves quality of life. Provides economic benefits through attracting inward investment and increased revenue through tourism. The diversity of habitats and species enriches people's lives. Economic growth if undertaken unsustainably could adversely impact upon these assets and housing.
Climatic Factors	Carbon emissions per capita for Dacorum are above the regional average but below the national average. Nearly 30% of carbon emissions arose from energy use in Dacorum's homes. Domestic energy efficiency improved by 23% between 1996	Ensure development proposals do not exacerbate flooding elsewhere in catchment by adopting the sequential approach to site selection advocated in the NPPF. Ensure consultation with the Environment	Climate change is likely to affect water resources (supply and demand), alter habitats, affect air

	and 2007. This compares to the Hertfordshire average of 19.9%.	Agency/Local Planning Authority. Sustainable Urban Drainage – porous surfaces, greenspace, wetlands, flood storage areas, urban forestry. Opportunity to decrease greenhouse gas emissions through reduced reliance on the private car.	quality and public health and increase flood risk. These could all adversely impact upon the borough’s economy. Greenhouse gas emissions could lead to significant climate changes which could have significant implications for other aspects of quality of life.
Cultural heritage	Development pressures and changes in agricultural policy are the two major challenges for the East of England’s historic environment. In Dacorum there are: <ul style="list-style-type: none"> • 32 scheduled monuments, including one on the register of scheduled monuments at risk: Roman settlement at the Cow Roast Inn, Northchurch; • 905 listed buildings; • 25 Conservation Areas, including one on the at risk register: Hemel Hempstead; • Four registered parks and gardens: Markyatecell Park; Ashridge; Water Gardens, Hemel Hempstead; and Tring Park. The Water Gardens are on the English Heritage ‘at risk’ register. 	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’. Be proactive in preparing development briefs to renew, restore and redevelop neglected and deteriorating sites of historic character. Ensure there are strong and robust design standards for new development. Ensure that new and existing developments have regard to settlement patterns, the local vernacular style and incorporate local materials. Ensure that the public realm is effectively designed using quality materials that maintain or add to the character/distinctiveness of an area. Recognise the importance of archaeological features and advocate a programme of archaeological investigation prior to initial earthworks. Retain features of historic landscape significance, where possible.	Cultural heritage contributes to the overall diversity and value of the landscape. It also provides economic benefits and is a source of enjoyment and entertainment for the population.
Landscape & Townscape	Light pollution is rapidly increasing and tranquillity is rapidly decreasing in the East of England. Parts of Dacorum fall within the Chilterns AONB.	Recognise value of all landscapes, not just designated sites. Monitor light pollution levels. New lighting should	An attractive landscape improves quality of life which in turn could contribute to increase

		<p>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>inward investment.</p> <p>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. In 2013, 48% of all household and commercial waste was recycled.</p> <p>The percentage of houses built on previously developed land is high. 60.7% of the housing completions in 2012/13 were on previously developed land (75% between 2006/07 and 2012/13).</p> <p>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>South west 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>The River Bulbourne: 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.</p> <p>The Chilterns Chalk Streams are particularly susceptible to</p>	<p>Recognise and implement Environment Agency's surface water protection policies.</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</p>	<p>Climate change is resulting in more extreme weather conditions and will heighten flood risk and demands on water resources.</p> <p>Negative synergy likely</p>

	<p>over abstraction. Household water use fell from 170.9 litres per head per day in 2000/01 to 150.6 l/h/d in 2012/13. Some areas of Dacorum are at risk from flooding. These are mainly along the Rivers Gade and Bulbourne, although the topography of the river valleys means that only relatively narrow corridors are affected by flooding. 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>development schemes, this includes the use of recycled water. New developments should incorporate rainwater re-use. Ensure new polluting processes are located in areas where groundwater is not vulnerable.</p>	<p>for flora and fauna when water bodies with low water flow combined with poor quality water</p>
<p>Population & Human Health</p>	<p>Dacorum’s population in 2011 was 144,800. It is forecast to grow to 162,400 by the end of the Core Strategy plan period (2031). An ageing population means that there are fewer economically active people to support an increasing number of people coming up to retirement age. 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. 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. Whilst some GP surgeries Hemel Hempstead are more crowded than the Hertfordshire average, across Dacorum as a whole there is considerable capacity within existing 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. The 2013 Health profile for Dacorum shows that 13.6% of children in Year 6 are obese. This is better than the English average (19.2%). 22.5% of adults are classified as obese,</p>	<p>Ensure adequate housing, facilities and infrastructure whilst protecting and enhancing the local environment. Promote the dual use of facilities, e.g. post office incorporated in community hall etc. Invest in sustainable transport infrastructure to support expansion. Encourage reused and recycled demolition waste in development. Encourage mixed-use developments. Use planning obligations to help secure an appropriate range of facilities. 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>

	<p>compared to an average for England of 24.2%.</p> <p>The overall number of noise complaints received by Dacorum BC decreased from 757 in 2010/11 to 406 in 2012/13, with domestic noise being the largest source of complaint (68.3%).</p>		
Housing	<p>At the start of 2003/04 6% of dwellings in Dacorum were unfit for dwelling (well below regional average of 27%).</p> <p>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. In the 1st quarter 2013 house prices for Dacorum were generally below the county average.</p> <p>In Dacorum there was a downward trend in the proportion of affordable housing completions between 2002/3 (34.62%) and 2004/5 (11.9%). This had recovered to 32% in 2012/13.</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 2012/13 and Hertfordshire ended the year at its lowest level since 2002 making the county one of the safest in England. In 2012/13 Hertfordshire had 56 recorded offences per one thousand population, compared to a national rate of 72.</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>In 2010 Dacorum ranked 267/354 in terms of deprivation compared to other English local authorities (354 = least deprived). This compares to a rank of 306 in 2004. However there are pockets of deprivation in Dacorum, although there are no wards in the 25% most deprived in England.</p> <p>Unemployment amongst those aged 18-24 in fell from 6.5% in March 2012 to 4.9% in March 2013. This figure is below the UK average of 7.2%.</p> <p>The forecast demand / supply gap (2012/13) for primary schools in Hertfordshire shows that Hemel Hempstead and</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 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.</p> <p>Planning obligations used to enhance existing educational facilities</p> <p>Encourage working from home by providing the</p>	<p>Poor health and well-being will adversely impact upon economic growth in the borough.</p>

	<p>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>necessary infrastructure. Need to provide a range of employment opportunities in different sectors.</p>	
Economic Factors	<p>The unemployment rate (persons aged 16-64) was 5.7% in Apr12-Mar13, compared to 7.8% in England. The Area Profile for Dacorum (February 2010) identified the following key points:</p> <ul style="list-style-type: none"> •The Business Density and Business Start Ups are in line with national and regional trends. However there are higher than average Employment levels and concentration of Directors living within Dacorum and a lower level of Business Closures. •The dominant sectors are Retail, Construction and Real Estate & Business the latter is significantly over-represented compared to regional trends. Specific clusters over-represented within Dacorum as compared with national figures include Technology, Creative Industries and Business Support Services. •85% of businesses have fewer than 10 employees but this is consistent with national and regional trends. Dacorum has only 2 corporate companies which is below the National, Regional & Sub-Regional average, employing 4.6% of the work force. •Business growth within Dacorum (55.8%) is significant against national and regional trends but consistent with sub-regional levels. •The wards that have a high concentration of business activity include Hemel Hempstead Central, Adeyfield East, Berkhamsted East, Tring West, Apsley and Bovington; Flaunden & Chipperfield. 	<p>Provide a range of employment sites, including ones that will be attractive to inward investment. Provide incubator units and units with shared facilities, e.g. reception and meeting facilities etc. LDF to identify suitable locations. Planning obligations used to enhance existing educational facilities Provide a range of employments sites that will be attractive to knowledge based industries 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 SA/SEA Framework

4.1 Environmental and Sustainability Objectives

Current guidance on SA/SEA of land use and spatial plans advocates the use of objectives in the appraisal process.

To achieve this, an SA framework of objectives, criteria and indicators was developed during the SA of the Core Strategy. The purpose of the framework 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 DPD against identified SA/SEA objectives.

The sustainability objectives included in the SA Framework are arranged under SEA/SA topics. The topics selected relate to the same topics listed in the SEA Directive and Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents, ODPM, November 2005.

For undertaking the assessment of the individual site allocations and area specific policies in the Site Allocations DPD, a more detailed framework which includes site specific criteria was developed. This is framework presented in Table 4-1.

4.1.1 Sustainability Objectives (Column 1)

As this SA project 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".

4.1.2 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.

4.1.3 Site specific questions (Column 3)

In order to contextualise the area specific assessments, the objectives and criteria have been translated into site specific issues to consider whilst conducting the assessment.

4.2 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 appropriate mitigation measures or alternative approaches in the Site Allocations DPD considered. Details of the compatibility analysis can be found in the Scoping Report.

4.3 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 Site Allocations. 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 Strategic Objectives

A compatibility assessment between the SA/SEA objectives and the strategic objectives (set by the Core Strategy, but repeated in the Site Allocations) was undertaken previously and reported in the SA Report for the Pre Submission Core Strategy (September 2011).

Table 4-1: Site Allocations SA Framework

Objective	Criteria	Site specific questions
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	<p>Would development of the site:</p> <ul style="list-style-type: none"> • provide opportunities for enhancement of biodiversity? • avoid fragmentation & improve connectivity? • contribute to a wider green infrastructure strategy? • protect woodlands, hedgerows, trees and watercourses? <p>Is it likely that there are any protected species or habitats on or near the site?</p> <p>Would development of the site impact locally on a recognised site of geological / geomorphological importance?</p>
	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) ²	
	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	
	To encourage people to come into contact with, understand, and enjoy nature	
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	<p>Would development of the site:</p> <ul style="list-style-type: none"> • be of a sufficient size to act as an exemplar for sustainable water management? • operate within the existing capacities for water supply and wastewater treatment? • enable resolution of existing wastewater infrastructure problems?
	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	

² Not always applicable to urban boroughs, such as Watford

	To maintain or restore the integrity of water dependent wildlife sites in the area	
3. Ensure that new developments avoid areas which are at risk from flooding and natural flood storage areas	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	<p>Is the site located outside of an area at risk from flooding? (e.g. flood zones 3a and 3b, or areas of known pluvial flooding)</p> <p>Would development of the site:</p> <ul style="list-style-type: none"> • reduce the risk of flooding to people and property? • resolve an existing drainage problem?
	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	
	To promote properly maintained sustainable urban drainage systems to reduce flood risk and run off in areas outside Source Protection Zones 1 (SPZ)	
Soil		
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 ³	<p>Would development of the site:</p> <ul style="list-style-type: none"> • involve the loss of high quality agricultural land? • involve remediation of previously developed land?
	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	<p>Is the site of sufficient size to act as an exemplar of sustainable development?</p> <p>Does the site location encourage sustainable modes of travel?</p> <p>Is the site of sufficient size to provide on or off-site CHP?</p> <p>Is the site located such that it could be linked to an existing CHP facility?</p> <p>Will it develop significant renewable energy resources?</p>
	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	To promote design measures which enable developments to withstand and accommodate the likely impacts and results of climate change (for	No site specific questions. Flood risk covered in SA3.

³ Might not always be applicable for urban boroughs, such as Watford

of withstanding the effects of climate change (adaptation to climate change)	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	Would development of the site affect an AQMA or lead to its designation? Would development of the site be likely to improve air quality within an area of poor air quality? Will the proposed use increase air pollution (from traffic or industrial processes)?
	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)	Is the site on previously developed land? Is the site capable of supporting higher density development and/or a mix of uses? Would development of the site: <ul style="list-style-type: none"> • restore vacant / contaminated land? • clean up contaminated land? • involve the loss of greenfield land • involve the loss of gardens? • allow re-use of existing buildings?
	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 efficiently as possible, and re-use finite resources or recycled alternatives wherever possible	To encourage maximum efficiency and appropriate use of materials, particularly from local and regional sources	Would development of the site: <ul style="list-style-type: none"> • be able to support the generation & use of renewable resources? • be able to take advantage of passive solar gain through orientation? • be able to minimise use of energy through design and occupation?
	To require new developments to incorporate renewable, secondary, or sustainably sourced local materials in 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	<ul style="list-style-type: none"> • be of a size to support waste to energy options? • be able to minimise demand for primary minerals & aggregates? • be able to use materials from nearby sources? • be able to recycle local stone to reinforce local character? <p>Is the site in a mineral safeguarding zone?</p>
	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	<p>Could development of the site enhance features & settings of historical, archaeological or cultural importance and the enjoyment of such assets?</p> <p>Would development of the site adversely affect a Conservation Area, listed building, HP&G, area of archaeological importance, SAM, or WHS?</p> <p>Is it likely to adversely affect a building, structure or area of heritage importance?</p>
	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	<p>Would development of the site:</p> <ul style="list-style-type: none"> • have the potential to enhance the quality & diversity of open land/countryside? • lead to coalescence of existing towns/villages? • be likely to adversely affect an area of landscape importance? <p>Would development of the site affect townscapes?</p> <p>Would development of the site provide green infrastructure as part of wider strategy?</p>
	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 & 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	<p>Would development of the site:</p> <ul style="list-style-type: none"> • provide opportunities to extend or improve the cycle/footpath network? • affect public rights of way? • provide open space for informal and/or formal
	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	recreation? <ul style="list-style-type: none"> enable enhanced access to existing open space? provide open space for allotments? integrate with a wider green infrastructure strategy? Would the site involve locating a noisy or polluting land use next to a sensitive land use?
	To narrow the income gap between the poorest and wealthiest parts of the area and to reduce health differential	
13. To deliver more sustainable patterns of location of development	To reduce the need to travel through closer integration of housing, jobs and services	Would development of the site: <ul style="list-style-type: none"> help to reduce the need to travel? Is the site within a main settlement? Is the site within close proximity to key services (e.g. schools, food shops, public transport, health centres etc.)
	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	Would development of the site: <ul style="list-style-type: none"> provide local community services & facilities e.g. education, health, leisure & recreation) or enable access to existing ones? provide facilities that existing communities could share? help support existing community facilities? promote mixed tenure & mixed use? provide business & employment space near to residents?
	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	Would development of the site secure afford affordable homes and/or Lifetime Homes?
16. Enhance community identity and participation	To recognise the value of the multi-cultural/faith diversity of the peoples in the region	Would development of the site include provision of religious cultural uses?
	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	<p>Could development of the site:</p> <ul style="list-style-type: none"> • reduce crime through design measures • increase the frequency of nuisance complaints and criminal / anti-social activity (noise pollution, vandalism, anti-social behaviour orders)
	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 growth	To support an economy in the Authority which draws on the knowledge base, creativity and enterprise of its people	<p>Would development of the site:</p> <ul style="list-style-type: none"> • lead to the loss of viable employment/jobs? • contribute employment floorspace?
	To promote and support economic diversity, small and medium sized enterprises and community-based enterprises	
	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	<p>Would development of the site:</p> <ul style="list-style-type: none"> • encourage provision of jobs to local people? • enable local people to work near their homes?
	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	<p>Would development of the site:</p> <ul style="list-style-type: none"> • support the vibrancy of the town centres • support the vibrancy of the local centres
	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	

5 Development of the Site Allocations

5.1 Introduction

In order to be considered 'sound' a DPD needs to be positively prepared, justified, effective and consistent with national policy. The proper consideration of options is key to developing a justifiable plan and the National Planning Policy Framework emphasises that for DPDs to be justified they should be the most appropriate strategy, when considered against the reasonable alternatives, based on proportionate evidence.

During the development of the Core Strategy a wide range of both strategic and more detailed options were developed and were subject to sustainability appraisal. The strategy, policies and strategic allocations that are included in the Adopted Core Strategy were therefore selected on the basis of being the most appropriate options in terms of overall soundness.

As the Site Allocations DPD is helping to deliver the objectives of the Core Strategy, so the range and scope of the options that can be considered in developing the DPD are much more limited. Sites that are allocated must be compliant with Core Strategy policy and therefore sites that do not comply cannot be considered as reasonable alternatives.

In developing the DPD a series of issues papers have been developed which explain how the site allocations process has been undertaken. These cover the topics of:

- The Sustainable Development Strategy;
- Strengthening Economic Prosperity;
- Providing Homes and Community Services; and
- Looking After the Environment.

These papers form part of the evidence base. Their role is to inform the content of the Site Allocations DPD through summarising background policy, guidance and advice relevant to each subject area; and assessing which sites, designations and/or boundary changes it is appropriate to take forward in the context of this advice and set out any additional selection criteria used.

The process of site selection described in the issues papers have been informed by the Sustainability Appraisals that are described in the sections below.

5.2 Sustainability Appraisal Working Notes

During the development of the Site Allocations DPD a wide range of site options has been considered. The first stage of this process was in 2006, with subsequent rounds in 2008 and 2014. The following sections provide a summary of the various sites options considered, how and when they were appraised, and information on where these assessments can be accessed.

All of the site options considered throughout the development of the Site Allocations have been subject to sustainability appraisal. See Table 1-1 for an outline of the various reports that have been produced to date.

5.2.1 Issues and Options – 2006

In 2006 Dacorum produced their Site Allocations Development Plan Document Issues and Options Paper. This document set out in very broad terms the issues which the Council believed should be considered when identifying land for future development, and suggested a number of options for tackling these issues. Specific sites that may be promoted for particular use(s) such as housing or employment were looked at, in addition to broader designations, such as the location of town and village boundaries and the extent of local centre designations. Where the Council did not propose any changes, it was the assumption that these sites and designations would remain unchanged from the previous Local Plan. A Schedule of Site Appraisals (November 2006) was also issued, which contained DBC's initial appraisal of all of the sites considered or proposed within the Issues and Options Paper.

This Site Allocations document was assessed as part of the SA and a Working Note set out the results. Whilst the sustainability appraisal for the Core Strategy's Issues and Options Papers utilised the framework of objectives that had been developed for the sustainability appraisal Scoping Report, it was decided that this approach was not appropriate for the Site Allocations Issues and Options Paper due to the nature of the Paper's contents. The following approaches were therefore taken for appraising the various aspects of the Paper.

Issues and Options

Many of the issues raised and questions posed were not easily appraised using the framework, for example questions that were procedural in nature. Therefore a brief commentary of the issues within each chapter, dealing with settlement strategy; housing; employment; retailing; transport infrastructure; community development; leisure and recreation; landscape, biodiversity and historic heritage; and design, was provided in terms of the likely sustainability implications. Where questions could be appraised, these were identified and their potential sustainability impacts explored.

Assessment of Site Appraisal Methodology

This sustainability appraisal assessed the appraisal methodology used by Dacorum BC when initially appraising the proposed sites, as set out in the Schedule of Site Appraisals (November, 2006). This was a key early input from the SA process as it ensured that the methodology used by DBC was aligned with the SA Framework at a level appropriate to the early consideration of site options. It also avoided unnecessary duplication of work between the plan making and SA activities.

The SA supported DBC's selection of key environmental designations. In relation to the key land issues provided in the Schedule of Site Appraisals the SA supported the approach taken and recommended that accessibility issues should be looked at in more detail at the next stage of the plan making process (the Preferred Options stage at that time).

Assessment of Site Sustainability Conclusion

Finally, the sustainability appraisal assessed the Council's sustainability conclusions reached for each of the proposed sites, and made recommendations for sites not to be progressed to the Preferred Options stage. To aid this initial appraisal, each of the sites was plotted (using GIS) against the key environmental designations identified within Dacorum BC's Site Appraisal Proforma. Sites were allocated into one of three categories; those that:

- Avoid Key Environmental Designations;
- Lie within Key Environmental Designations; and
- Are adjacent/within close proximity of Key Environmental Designations.

This initial assessment largely agreed with the Sustainability Conclusions put forward by the Council. Of the 181 sites proposed, the initial sustainability appraisal identified very few conflicts. Four sites were identified that conflicted with key environmental designations defined by the council, it was recommended that these sites were not taken forward to the Preferred Options stage.

In addition, in the initial assessment of sites, DBC had identified 20 sites that were recommended not to be progressed to the Preferred Options stage. The SA agreed with these recommendations.

The full results of the appraisal undertaken can be found in the SA Working Note. This can be accessed via the Dacorum Borough Council website at:

<http://www.dacorum.gov.uk/home/planning-development/planning-strategic-planning/local-planning-framework/sustainability-appraisals>

5.2.2 Supplementary Issues and Options – 2008

In 2008 Sustainability Appraisal of site options followed on from the Working Note previously published in November 2006 alongside the Site Allocations DPD Issues and Options Report. Whilst the previous note provided an assessment of the general issues and options associated with the DPD as well as assessing the sites that were being considered, the Working Note prepared in 2008 only looked at additional sites that had been identified since November 2006. In order to maintain consistency the approach taken to undertaking this assessment was the same as the methodology that was used in the previous round of site assessment.

This assessment found broad agreement with the Sustainability Conclusions put forward by DBC.

Of the 173 sites proposed, the initial sustainability appraisal identified a number of conflicts relating to key environmental designations. While some of these had been identified in the Schedule of Site Appraisals, others had not. In the cases where sites that had been recommended by DBC to be taken forward to the next stage, but the assessment had identified conflicts with key designations, recommendations were made as to whether these sites should or should not be taken forward to the next stage. Where a designation conflicted with only a small area of a proposed site, the site might have still been considered at the next stage with the intention of avoiding conflict with, or damage to, the designation.

The details of the assessment are provided in the SA Working Note (October 2008) which is available at:

<http://www.dacorum.gov.uk/home/planning-development/planning-strategic-planning/local-planning-framework/sustainability-appraisals>

5.2.3 Supplementary Schedule of Site Appraisals - 2014

In April 2014 a similar exercise was undertaken and a further 67 sites were appraised, using the same methodology as in 2006 and 2008. Some of these sites were variations of sites previously appraised, with modified footprints or uses being proposed.

Whilst the appraisal identified some constraints that were not picked up in the Schedule of Site Appraisals, it broadly agreed with the sustainability conclusions for each of the sites. The appraisal also supported the decisions as to whether sites should or should not be taken forward into the Site Allocations DPD.

The details of the assessment are provided in the SA Working Note (May 2014) which is available at:

<http://www.dacorum.gov.uk/home/planning-development/planning-strategic-planning/local-planning-framework/sustainability-appraisals>

6 Assessment of the Pre Submission Site Allocations – May 2014

6.1 Introduction

A Pre Submission Site Allocations Document has now been prepared following consultation with stakeholders and the local community and this has now been appraised.

The appraisal used the assessment criteria as outlined in Figure 6-1. 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 6-1: Assessment Criteria

Based on the methodology described above, all the policies and allocations in the Site Allocations DPD were assessed and the results presented in detailed assessment matrices in Appendix A.

6.2 Summary of the assessment

A summary of the assessment of the Pre Submission Site Allocations DPD against the SA/SEA objectives is provided in Table 6-1.

Table 6-1: Summary of the Assessment

Policies / Site Allocations (abridged)	Sustainability Appraisal Objectives (abridged)																			
	Biodiversity	Water quality/quantity	Flood risk	Soils	Greenhouse gas emissions	Climate change proof	Air quality	Use of brownfield sites	Resource efficiency	Historic & cultural assets	Landscape & Townscape	Health	Sustainable locations	Equality & social exclusion	Good quality housing	Community identity	Crime and fear of crime	Sustainable prosperity/gwth	Fairer access to services	Revitalises town centres
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Policy SA1: Identified Proposals and Sites	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Policy SA2: Major Devt Sites in the Green Belt	Due to the nature and context of the policy it was not assessed against the individual SA objectives. A sustainability commentary has been provided.																			
Site MU/1: W.Herts College site & assoc. area	?	?	?	?	✓	-	✓	✓	-	?	?	?	✓	✓	✓	-	-	✓	✓	✓
Site MU/2: H.Hemp.Hospital Site, Hillfield Road	?	-	-	-	✓	-	✓	✓	-	-	-	✓	✓	✓	✓	-	-	✓	✓	✓
Site MU/3: Paradise/Wood Lane	-	-	-	-	✓	-	✓	✓	-	-	-	✓	✓	✓	✓	-	-	*	✓	✓
Site MU/4: H.Hemp. Station Gateway	-	-	-	-	?	-	?	✓	-	?	?	?	?	✓	✓	-	-	✓	-	-
Site MU/5: Bunkers Park, Bunkers Lane	?	-	-	*	?	-	-	*	-	-	*	?	*	✓	-	✓	-	-	-	-
Site MU/6: Land at Durrants Lane/Shootersway	*	-	-	*	*	-	*	*	✓	?	*	?	*	*	✓	-	-	✓	✓	✓
Site MU/7: Gossoms End/Billet Lane	-	?	?	-	✓	-	✓	✓	-	?	?	✓	✓	✓	✓	-	-	✓	✓	✓
Policy SA3: Improving Transport Infrastructure	?	-	-	-	✓	-	✓	-	-	-	-	✓	-	✓	-	✓	-	✓	-	?
Policy SA4: Public Car Parking	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	-	-	-	✓	✓	✓
Transport Proposals (T1-T15)	?	-	?	*	✓	-	✓	*	-	?	?	✓	-	✓	-	-	-	-	-	✓
Transport Proposals (T16-T19)	-	?	?	-	?	-	?	✓	-	?	?	-	-	✓	-	-	-	-	-	✓
Transport Proposals (T20-T22)	?	-	-	*	✓	-	✓	*	-	-	?	✓	-	✓	-	-	-	-	-	-
Proposal T23: LA6, Chesham Rd/Molyneux Av	?	-	-	*	✓	-	✓	*	-	-	?	✓	-	-	-	-	-	-	-	-
Policy SA5: General Employment Areas	?	?	?	-	-	-	-	✓	✓	✓	✓	-	-	✓	-	-	-	✓	✓	✓
Policy SA6: Employment Areas in the Green Belt	?	?	?	-	-	-	-	✓	-	-	✓	-	-	-	-	-	-	✓	✓	-
Proposal E/1: Icknield Way, Tring	*	-	-	*	*	-	?	*	-	-	*	-	*	✓	-	-	-	✓	✓	✓
Policy SA7: Shopping in Town Centres	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	✓	✓
Proposal S/1: Jarman Fields, St Albans Road	?	-	-	-	*	-	*	✓	-	-	?	*	*	✓	-	-	-	✓	✓	?
Policy SA8: Local Allocations	Due to the nature and context of the policy it was not assessed against the individual SA objectives. A sustainability commentary has been provided.																			
Policy LA1: Marchmont Farm, Hemel Hempstead	*	-	-	*	✓	-	✓	*	-	-	*	✓	✓	✓	✓	-	-	✓	✓	?
Policy LA2: Old Town, Hemel Hempstead	*	-	-	*	✓	-	✓	*	-	-	?	✓	✓	✓	✓	-	-	✓	✓	✓
Policy LA3: West Hemel Hempstead	*	-	-	*	✓	-	✓	*	-	-	*	*	*	✓	✓	-	-	✓	✓	?
Policy LA4: Hanburys, Shootersway, Berkhamsted	*	-	-	*	*	-	*	*	-	-	*	*	*	✓	*	✓	-	-	✓	✓
Policy LA5: Icknield Way, West of Tring	*	-	-	*	?	-	*	*	-	-	*	✓	*	*	✓	-	-	✓	✓	✓
Policy LA6: Chesham Rd/Molyneux Av, Bovingdon	*	-	-	*	*	-	*	✓	-	-	*	?	*	✓	✓	✓	*	✓	✓	✓
Policy SA9: Sites for Gypsies and Travellers	Due to the nature and context of the policy it was not assessed against the individual SA objectives. A sustainability commentary has been provided.																			
Proposal H/1: Land r/o 186-202 Belswains Lane	-	-	?	?	✓	-	✓	✓	-	-	-	✓	✓	✓	-	-	-	*	✓	✓
Proposal H/2: National Grid land, London Road	?	-	-	✓	✓	-	?	✓	-	-	✓	✓	?	✓	✓	-	-	*	✓	✓
Proposal H/3: Land at Westwick Farm, P'cake Lane	*	-	-	*	✓	-	✓	*	-	*	*	✓	✓	✓	✓	-	-	*	✓	✓
Proposal H/4: Ebbwens Road	-	?	?	-	✓	-	?	✓	-	-	✓	✓	-	-	-	-	-	*	?	✓
Proposal H/5: Former Hewden site, Two Waters Rd	*	?	?	?	✓	-	?	?	-	-	*	✓	✓	✓	✓	-	-	-	✓	✓
Proposal H/6: 39-41 Marlowes	-	-	?	-	✓	-	✓	✓	-	?	-	✓	✓	✓	✓	-	-	*	✓	✓
Proposal H/7: Leverstock Green Tennis Club	*	-	-	-	✓	-	✓	✓	-	-	?	-	-	-	-	-	-	-	-	✓
Proposal H/8: Land at Turners Hill	*	-	-	*	✓	-	✓	*	-	-	*	✓	*	✓	✓	*	-	-	-	✓
Proposal H/9: 233 London Road	-	-	-	-	✓	-	?	✓	-	-	-	*	✓	✓	✓	-	-	*	✓	✓
Proposal H/10: Apsley Paper Trail land, London Rd	?	?	?	-	✓	-	?	✓	-	-	-	?	✓	✓	✓	-	-	*	✓	✓
Proposal H/11: The Point, Two Waters Road	-	?	?	-	✓	-	?	✓	-	-	?	?	✓	?	✓	-	-	*	✓	✓
Proposal H/12: Land r/o St M's Way/Datchworth Turn	*	-	-	*	✓	-	✓	*	-	-	*	?	?	*	✓	-	-	-	✓	✓
Proposal H/13: Former Martindale School Boxed Rd	?	-	-	*	✓	-	✓	✓	-	-	?	-	✓	*	✓	-	-	-	✓	✓
Proposal H/14: Frogmore Road	-	?	?	✓	✓	-	✓	*	✓	-	✓	✓	✓	-	-	-	-	*	✓	✓
Proposal H/15: Former Police Stn, Berk'h'd	-	-	-	-	✓	-	✓	✓	-	?	?	✓	✓	✓	✓	-	-	-	✓	✓
Proposal H/16: Berk'h'd Civic Centre	-	-	-	-	✓	-	✓	✓	-	?	?	✓	✓	✓	✓	-	-	?	✓	✓
Proposal H/17: High Street / Swing Gate Lane	-	-	-	-	✓	-	✓	✓	-	?	?	✓	✓	✓	✓	-	-	-	?	✓
Proposal H/18: Miswell Lane	*	-	-	*	✓	-	✓	*	-	-	*	✓	✓	✓	✓	-	-	*	✓	✓
Proposal H/19: Western Road	-	-	-	-	✓	-	✓	✓	-	-	-	✓	✓	✓	✓	-	-	*	✓	✓
Proposal H/20: Depot land, Langdon Street	-	-	-	-	✓	-	✓	✓	-	?	?	✓	✓	✓	✓	-	-	*	✓	✓
Proposal H/21: Land adjacent to Coniston Road	*	-	-	*	✓	-	✓	*	-	-	*	*	✓	✓	✓	-	-	-	-	✓
Proposal H/22: Hicks Road / High Street	-	-	?	-	?	-	?	✓	-	-	?	-	✓	✓	✓	-	-	*	✓	✓
Proposal H/23: Watling St (r/o Hicks Rd/High St)	?	-	-	-	?	-	?	✓	-	-	✓	-	✓	✓	✓	-	-	*	✓	✓
Proposal H/24: Garden Scene Nursery, Chipperfield	-	-	-	-	*	-	?	✓	-	-	?	?	*	✓	✓	✓	-	*	?	✓
Policy SA10: Education Zones	*	?	?	*	?	-	?	*	-	-	?	?	✓	?	✓	-	-	-	-	-
Proposal C/1: Land West of Tring	*	-	-	*	-	-	-	*	-	-	*	-	*	✓	-	-	-	✓	-	-
Proposal C/2: Buddhist Monastery, Gt Gadd'n	-	-	-	-	-	-	-	✓	-	?	?	-	-	-	-	-	-	✓	-	-
Proposal L/1: Mkt Sq & Bus Stn, H.Hemp	-	?	?	-	✓	-	✓	✓	-	?	?	✓	✓	✓	?	-	-	✓	✓	✓
Proposal L/2: Durrants L/Shootersway, Berk'h'd	-	-	-	-	-	-	-	-	-	?	?	✓	✓	✓	✓	-	-	-	-	-
Proposal L/3: Land west of LA5: Icknield Way	✓	-	-	-	-	-	-	-	-	-	✓	✓	*	✓	-	-	-	-	-	-

The sections that follow summarise the results of the assessment for each Site Allocations 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 Section 6.9.

6.3 Promoting Sustainable Development

6.3.1 Policy SA1: Identified Proposals and Sites

This policy has been assessed as having positive effects against some economic and social objectives. The policy aims to develop and redevelop sites that will be used to provide local facilities for local communities, increasing equality and reducing social exclusion. Providing employment sites will help to support the local economy and aid 'sustainable prosperity and growth'.

6.3.2 Policy SA2: Major Development Sites in the Green Belt

This policy requires that proposals for development will be determined in accordance with Core Strategy Policy CS5, which was assessed previously in the SA of the Core Strategy, and so no additional assessment has been undertaken here. The Major Developed Sites listed (MDS/1, MDS/2, MDS/3, MDS/4, MDS/5, MDS/6 and MDS/7) are existing developments and therefore have not undergone assessment, however the requirements for these sites set in the site allocations should help to mitigate any potential adverse effects by protecting open and semi-rural character, minimising impacts on listed buildings and their settings, and maintaining open land.

6.3.3 Site MU/1: West Herts College site and Civic Zone, Queensway / Marlowes / Combe Street (north) / Leighton Buzzard Road

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 provision of additional housing means there will be more residents in the community, making facilities and shops more viable. The location in the town centre should have a positive effect 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 emissions. Close proximity to facilities could be positive for the health objective and the regeneration of the old civic, education and employment areas could be positive for the 'landscape & townscape' objective. This site could result in adverse effects on 'water quality/quantity' and 'flood risk' due to its location adjacent to the River Gade. Some green space and trees could be lost as a result of development which could adversely affect 'biodiversity' and 'soils'. The location adjacent to a Conservation Area and close to listed buildings means there are potential adverse effects for 'historic and cultural assets' that will need to be mitigated through sensitive design. The 'health' and 'landscape & townscape' objectives could also be affected by the loss of green space as part of the development.

6.3.4 Site MU/2: Hemel Hempstead Hospital Site, Hillfield Road

The effect on 'biodiversity' is uncertain, however it may be adversely affected as part of the site is a wildlife site and increased use by new residents could potentially have a negative impact. 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 easier to access. This would help to support the local economy and maintain community vibrancy and vitality. With regard to social objectives, the site is forecast to have positive effects for 'health' and 'equality and exclusion', with the replacement of the old hospital and the availability of open

space for recreation and development of a new primary school. Re-developing the old hospital could improve the townscape in the locality and the landscape should not be adversely affected as the green space within the site is to be maintained. In terms of environmental objectives, the site has been assessed as having positive effects on 'greenhouse gas emissions' and 'air quality', as the site is in the town centre and therefore has good access to local facilities which could decrease the need to travel, reducing the level of growth in emissions.

6.3.5 Site MU/3: Paradise/Wood Lane

This site has been assessed as having positive effects on 'greenhouse gas emissions' and 'air quality', as the site is in the town centre and therefore has good access to local facilities which could decrease the need to travel, reducing the level of growth in emissions. There could also be a positive effect on 'health' as people could be encouraged to walk or cycle to access facilities and may use the adjacent open space for recreation purposes. Positive effects are also predicted for the 'equality and social exclusion', 'good quality housing', 'fairer access to services' and 'revitalising the town centre' objectives as the site is close and has easy access to local facilities and employment areas. The provision of housing should help support the vibrancy of the town centre and will include a proportion of affordable housing. The site could adversely affect the 'sustainable prosperity & growth' objective as development here could result in the loss of some employment land.

6.3.6 Site MU/4: Hemel Hempstead Station Gateway, London Road

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 area. Development of the site will provide additional commercial floor space for uses linked with the railway station and provide additional car parking at the mainline station which could benefit existing communities that use the station. The site consists of previously developed land, making use of a brownfield site. The effects on 'greenhouse gas emissions' and 'air quality' are uncertain as although the site is located close to the main railway station and other public transport links, it is a distance from the main town centre and local centre of Apsley which may encourage increased car use. There is also uncertainty regarding the impact on social objectives such as 'health' due to the unknown impact on active modes of travel and potential noise from the railway impacting the wellbeing of new residents. Development at the site will need to take into account that part of the site is located in an Area of Archaeological Significance and the potential to affect the semi-rural character of Boxmoor and the local residential area to ensure that the 'historical & cultural assets' and 'landscape and townscape' are not adversely affected.

6.3.7 Site MU/5: Bunkers Park, Bunkers Lane

Development at this site could have adverse effects on 'biodiversity' as there could be some loss or damage of some greenfield land and therefore there would be loss or damage of some habitats. However existing trees and hedgerows are to be maintained and further planting to be potentially undertaken, therefore the effects are uncertain. Development of site would result in some soil sealing and soil loss. There could also be an adverse effect on greenhouse gas emissions as the proposed uses of the site and its location on the edge of Hemel Hempstead mean it is likely to attract users who would have to travel to the site by car. This may lead to an increase in greenhouse gas

emissions. Development at the site is likely to adversely affect the landscape as it could affect the Green Belt designation of the site. Plans to minimise the adverse effects include separating the buildings and car parking on site from adjacent residential properties and open areas by an effective landscape screen. The site location on the south east edge of Hemel Hempstead does not support the 'sustainable locations' objective. Development at the site is predicted to have positive effects on social objectives. The proposed use of the site as playing pitches and tennis facilities encourages good health, provides leisure and community facilities for people residing in the local community.

6.3.8 Site MU/6: Land at Durrants Lane/Shootersway (Egerton Rothersey 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 Green Belt, there could however be a visual impact, as it would result in the use of open space for development. Providing 150 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. There are plans for leisure uses, although 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.

6.3.9 Site MU/7: Gossoms End/Billet Lane

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 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 and maintain community vibrancy and vitality. The location in the town centre should have a positive effect 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 emissions. Close proximity to facilities could encourage active modes of transport and improve health, equality and reduce social exclusion. Employment opportunities would be maintained by the replacement of the car sales and timber yard with a food supermarket. Development at the site could have an adverse effect on water quality/quantity and flood risk due to the proximity of the site to the River Bulbourne and the Grand Union Canal. A flood risk assessment will be required. There is also a need for sensitive design to ensure that the character of the watercourse and surrounding landscape is not adversely affected. As the site is within an Area of

Archaeological Significance, this will need to be taken into account to ensure any adverse effects are mitigated.

6.3.10 Policy SA3: Improving Transport Infrastructure

Positive effects have been identified against the 'greenhouse gas emissions', 'air quality' and 'health' objectives through the provision of cycle and pedestrians routes, reduce airborne emissions and encouraging active modes of transport. Minor improvements to roads (i.e. junctions) that would allow traffic to move more freely and help to reduce traffic congestion could also have a positive effect on the 'greenhouse gas emissions' and 'air quality' objectives, assuming that they do not lead to induced traffic. Although no direct/short term effects are forecast against the 'biodiversity' objective, it is possible that there may be indirect positive effects from reduced traffic pollution associated with the medium/long term plan to enhance footpaths and cycle networks and support bus patronage. Positive effects have been forecast against the majority of social objectives, with improvements to public transport networks leading to improved access to community facilities, services and employment, including for those without access to a car.

6.3.11 Policy SA4: Public Car Parking

This policy is forecast to have a positive effect on social and economic objectives. Retaining off street public car parks and encouraging shared use of private car parks during off peak hours would allow people to park in town centres which in turn could help to improve access to community services and facilities thus supporting the local economy.

6.3.12 Transport Proposals (T1-T15)

Development of junctions and highways associated with the local allocations (T10, T11 and T12) could have adverse effects due to the loss of greenfield land and the possible negative effect of this on biodiversity, soils and the local landscape. T1 and T2 are within flood zones 2 and 3 and therefore flood risk assessments are required. Positive effects have been identified against the 'greenhouse gas emissions', 'air quality' and 'health' objectives through the provision of cycle and pedestrians routes, reduce airborne emissions and encouraging active modes of transport. The aim to improve safety as part of T6 and T7 should also have a positive effect on 'health'. Positive effects on social objectives include safeguarding the bus and railway stations (T T1, T3, T4 and T5) which should ensure local communities continue to have access to public transport and improved access to the town centre (T13 and T15) which should help ensure the vitality of the town centre. T3 is within an Area of Archaeological Significance and T2 and T4 are adjacent to Historic Parks and Gardens which will need to be taken into account when the site is developed to mitigate adverse effects.

6.3.13 Transport Proposals (T16-T19)

The close proximity of T19 to the River Bulbourne and Grand Union Canal mean that water quality could be adversely affected in these water courses. This also means that there is potentially a flood risk and a flood risk assessment will need to be required. Traffic calming as part of T18 could potentially have positive effects for the 'greenhouse gas emissions' and 'air quality' objectives. Positive effects forecast for social objectives

include continued access to public transport for local communities and improved access to facilities in the town centre through safeguarding of the railways station (T16) and increased public parking (T19). Improving the high street corridor (T18) and increasing capacity of the Lower Kings Road public car park (T19) should help to support the vibrancy of the town centre. The location of T18 and T19 within a Conservation Area and within the Berkhamsted, medieval castle & town, prehistoric & Roman occ. may have an adverse effect however the traffic calming in T18 could have a positive effect to mitigate this. Improvements to the High Street corridor (T18) could improve the townscape in this area. However, decking the Lower Kings Road public car park (T19) could adversely affect the townscape in this area, particularly given its location close to the River Bulbourne and Grand Union Canal.

6.3.14 Transport Proposals (T20-T22)

Development of junctions and highways in the local allocation (T21) could have adverse effects due to the loss of greenfield land and the possible negative effect of this on biodiversity, soils and the local landscape. Positive effects from Proposals T20 and T21 have been identified against the 'greenhouse gas emissions', 'air quality' and 'health' objectives through the provision of cycle and pedestrians routes, reduced airborne emissions and encouraging active modes of transport. Safeguarding the railway station (T20) should ensure local communities continue to have access to public transport.

6.3.15 Proposal T23: Local Allocation LA6, Chesham Road / Molyneaux Road

Development of junctions and highways in this proposal could have adverse effects due to the loss of greenfield land and the possible negative effect of this on biodiversity, soils and the local landscape. Positive effects have been identified against the 'greenhouse gas emissions', 'air quality' and 'health' objectives through the provision of cycle and pedestrians routes, reduce airborne emissions and encouraging active modes of transport.

6.4 Strengthening Economic Prosperity

6.4.1 Policy SA5: General Employment Areas

Positive effects have been forecast against the economic objectives 'sustainable prosperity & growth' and 'fairer access to services' as this policy allows for additional floorspace to be developed within existing employment areas, allowing for provision of local jobs. A number of the sites could allow for waste management facilities, such as Two Waters, Northbridge Road, River Park, and Icknield Way. Developing within existing employment areas supports the objective on 'use of brownfield sites'. Some of the environmental improvements may have positive or uncertain impacts on a number of the environmental objectives, such as 'biodiversity' (for Frogmore Mill and Two Waters), 'water quality/quantity' (for Frogmore Mill, Billet Lane, Northbridge Road, and River Park), 'historic & cultural assets' (for Apsley Mills, Corner Hall, Frogmore Mill, Two Waters, Akeman Street and Brook Street) and 'landscape & townscape' (for Doolittle Meadow, Two Waters, Corner Hall, Akeman Street, Billet Lane, Northbridge Road and River Park. Some of the sites are located close to a watercourse and any developments at these sites are likely to require a flood risk assessment. Provision of social and community uses at Akeman Street could provide facilities for the local community.

6.4.2 Policy SA6: Employment Areas in the Green Belt

Positive effects have been forecast against the economic objectives 'sustainable prosperity & growth' and 'fairer access to services' as this policy allows for additional floorspace to be developed within existing employment areas in the Green Belt, allowing for provision of local jobs. Developing within existing employment areas supports the objective on 'use of brownfield sites'. Some of the environmental improvements may have an effect on a number of the environmental objectives, for example Bourne End Mills is within the River Bulbourne flood zone and there could therefore be implications for water quality from any new uses at this site. A flood risk assessment may also be required. The potential improvements to landscaping at Bourne End Mills and general environmental improvements at Bovingdon Brickworks support the 'landscape & townscape' objective. Also some of the potential environmental improvements outlined may have positive effects on biodiversity, although due to the lack of specifics about what these improvements might be the effect is considered to be uncertain.

6.4.3 Proposal E/1: Icknield Way, Tring

Development of this site compensates for other employment land being lost in the town and therefore employment opportunities should be maintained, providing jobs for local people. The site is located on the edge of Tring and therefore may encourage greater car use. As a result negative effects have been identified for the objectives on 'greenhouse gas emissions' and 'sustainable locations'. Uncertain effects have been identified in relation to air quality as there is potential for reducing heavy traffic within the town centre. The site is greenfield agricultural land and therefore negative effects have been identified for a number of the other environmental objectives including 'biodiversity', 'soils', and 'use of brownfield sites'. The site is also located close to an AONB and negative effects are therefore identified for 'landscape & townscape' as development could result in effects on landscape quality.

6.5 Supporting Retail and Commerce

6.5.1 Policy SA7: Shopping in Town Centres

Positive effects have been identified for the economic objectives as this policy allows for various types of retail development in key shopping areas, would help to encourage local provision of and access to jobs and requires all new development within the shopping areas to contribute to the vibrancy of the town centre. Ensuring active frontages at ground floor level supports the objective on 'crime and fear of crime'. Active frontages should also have a positive effect on the quality of the townscape.

6.5.2 Proposal S/1: Jarman Fields, St Albans Road

Development of this site at Jarman Fields for retail uses will contribute employment floorspace and provide local jobs, thereby having a positive effects on the objectives 'sustainable prosperity & growth' and 'fairer access to services'. Providing additional retail facilities is positive in terms of overall provision for the local community, however development of this site could adversely affect the vibrancy of the town centre should it attract shoppers away from the centre and therefore uncertain effects have been identified for 'revitalise town centres'. The site is brownfield, being a former landfill site, although it is currently open land/park land. Development may result in some loss of

biodiversity and uncertain effects have been identified in relation to this objective. Loss of park land has also resulted in an adverse effect being identified for the 'health' objective. The site is out of the town centre, and although only 1.5 km away is likely to encourage use of the car, leading to a growth in greenhouse gas emissions and airborne emissions. Negative effects have also been identified for the 'sustainable location' objective, again due to its out of centre location. The site is an important gateway location and therefore the design and landscaping of the development needs to take this into account. This requirement, along with the loss of open land, has resulted in uncertain effects being identified for 'landscape and townscape'.

6.6 Providing Homes

6.6.1 Policy SA8: Local Allocations

This policy allows for local allocations to be brought forward in accordance with Policies LA1 to LA6 and the Schedule of Proposed Housing Proposals and Sites. Each of these policies are covered later within this assessment of the Site Allocations document and therefore no specific assessment has been undertaken here. Granting planning permission in advance of the local allocations development, for uses associated with open land and temporary uses (which do not prejudice future delivery of the site) could help to provide for formal and informal facilities for local communities in the shorter term.

6.6.2 Policy LA1: Marchmont Farm, Hemel Hempstead

This allocation 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. Pedestrian and cycle access will be provided to Henry Wells Square and to key services, also supporting these objectives.

Adverse effects have been forecast for biodiversity, soils, and use of brownfield sites. The site is greenfield within the Green Belt, and would therefore result in loss or damage of habitats, as well as soil sealing. The development will however incorporate open space throughout the neighbourhood, linking Margaret Lloyd Park, Howe Grove and the wider area. The allocation would have a visual impact on the landscape of the Gade Valley and Piccotts End, resulting in adverse impacts for landscape. Limited buildings two storeys, except where a higher element would create interest and focal points in the street scene, could help to mitigate the adverse effects, as should softening the views of the housing from the countryside through planting, retaining hedgerows and careful siting of open space.

The allocation is located near local facilities, which could encourage walking and cycling, resulting in positive effects on health. The proposal will also deliver an extension to Margaret Lloyd Park and provide a locally equipped area of play (LEAP). This allocation 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 allocation will provide approximately 300-350 units of housing, with 40% affordable housing. The site will provide a traveller site of 5 pitches. 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 allocation would result in uncertain effects on revitalise town centres, as by developing new homes in the Green Belt around Hemel Hempstead this is not encouraging development in the centre of urban areas but would support local centres.

6.6.3 Policy LA2: Old Town, Hemel Hempstead

This allocation 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. Improvements are to be made to the east-west and north-south footpaths which could further encourage walking, while providing adequate provision for bicycles within residential properties could further encourage cycling.

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. New open spaces (around 1 hectare) will be incorporated into the development which could help to mitigate these effects. The site 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. The new buildings will however be designed to positively contribute towards the character of the Conservation Area so the effects should be mitigated. Development in the Green Belt at this location would result in some adverse effects on local landscapes and townscape. Respecting the landscape and character of the sites, along with softening the views of the development from across the valley and open space could help to mitigate the adverse effects. Limiting housing two storeys, except where a higher element would create interest and focal points in the street scene, also supports this objective.

The allocation 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. Provision of open space, as well as improvements to cycling and walking infrastructure should also have a positive effect on health.

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 allocation will provide housing, including 40% 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.

6.6.4 Policy LA3: West Hemel Hempstead

This allocation is forecast as having positive effects on greenhouse gas emissions and air quality, as although the site is located at a moderate distance from shops and facilities, which could increase the need to travel. The new development will provide a local shop, and other community facilities and services including a new primary school which could help to mitigate these effects. In addition, provision of good pedestrian and cycle access between the neighbourhoods, and to key services, and a bus route also supports this objective. Walking and cycling may still however 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 Green Belt, and would therefore result in loss or damage of habitats, as well as soil sealing. Retaining hedgerows and trees,

using native species in planting schemes and providing a coherent, and wildlife friendly open space network (including an extension to the Shrubhill Common Nature Reserve) as part of the new development could help to mitigate these effects.

The allocation would have a visual impact on the landscape of the Bulborne Valley. However, softening the views of housing from the countryside, through tree planting, by retaining appropriate tree belts and careful siting of open space, as well as providing a soft edge with the countryside could help to mitigate these effects. As could (normally) limiting buildings to two storeys, using traditional materials and taking the character of the buildings in the Chilterns area as a guide to high quality attractive design.

In terms of health, the allocation is located at a moderate 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, which could have an adverse effect against the health objective. However a new doctor's surgery is one of the requirements of the development which would help to alleviate this issue. Providing a pleasant footpath and cycle access to link with the Chiltern Way, Hertfordshire Way, the Grand Union Canal and the Chilterns AONB does however support this objective, as does the provision of new open space/playing fields within the site.

In terms of equality and social exclusion, the allocation is located at a moderate distance from local facilities, and local health facilities are at capacity. The new development however will provide a local shop, and other community facilities and services including a new primary school. The development is also to support the enlargement of the Parkwood doctors' surgery.

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 allocation will provide up to 900 units of housing, including 40% affordable housing. The site will provide a traveller site of 7 pitches. 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 allocation could result in adverse effects on revitalising town centres, as by developing new homes in the Green Belt around Hemel Hempstead this is not encouraging development in the centre of the urban area.

6.6.5 Policy LA4: Hanburys, Shootersway, Berkhamsted

In relation to this allocation adverse effects have been forecast for biodiversity, soils, use of brownfield sites and landscape, as the site is greenfield, within the Green Belt and would therefore result in loss of landscape character, loss of habitats and soil sealing. Retaining the pond, mature planting on to Shootersway and providing a coherent, and wildlife friendly open space network that links to the surrounding countryside could help to mitigate the biodiversity effects. As could potential developer contributions towards offsetting the loss of wildlife resource. While, creating a soft edge to the settlement through enhancing and maintaining existing landscaping and careful design and layout could help to mitigate the landscape effects.

Positive effects have been forecast on the housing, sustainable prosperity and growth, fairer access to services and revitalise town centres objectives. 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 site is located at a distance from the town centre, which could encourage greater car use thereby leading to increasing emissions. The location of the site and the topography of Berkhamsted have also lead to the allocation being forecast as likely to have adverse effects on health, as active travel such as walking and cycling would be discouraged.

6.6.6 Policy LA5: Icknield Way, West of Tring

As development of site would lead to development on greenfield land, within the Green Belt and close to the Chilterns AONB, adverse effects have been forecast for the biodiversity, soils, use of brownfield sites and landscape & townscape SA objectives. The development requirements seek to mitigate these impacts through careful layout, design, density and landscaping. For example, limiting the effect of the new development on views from the AONB and creating a soft edge and transition with the AONB could help to mitigate these effects. The site is adjacent to Tring cemetery, which is a locally listed historic park and garden, protecting the green and open setting of this designation should mitigate any potential adverse effects.

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 emission to air. Pedestrian and cycle routes will permeate the site which should help to encourage walking and cycling on the site. 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 around 180-200 dwellings, including 40% 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. The new housing on the site should help to support the local services in the town, maintaining their viability and boosting the local economy.

6.6.7 Policy LA6: Chesham Road and Molyneaux Avenue, Bovingdon

Development at this greenfield site would have adverse effects on biodiversity as it is located in a high value local wildlife corridor. Retaining existing trees and hedges, as well as providing for open space could help to mitigate these effects. Adverse effects have also been forecast for soils as a result of soil sealing, landscape & townscape as the site is located within the Green Belt and air quality and greenhouse gas emissions as the site is separated from the village by a busy road, which could discourage cycling and walking. Providing pedestrian and cycle access to Hyde Lane and Lancaster Road, and promoting sustainable travel options however could reduce some of these effects.

Positive effects have been forecast for the majority of the social and economic objectives. The requirement to contribute towards local social infrastructure facilities could have a positive effect on the equality and social exclusion and community identity and participation objectives. Developing this, site will provide for 60 dwellings, with 40% 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. Incorporating perimeter development with outward facing buildings, dual fronted properties will address corners providing surveillance over areas of open space. This type of layout supports this objective.

6.6.8 Policy SA9: Sites for Gypsies and Travellers

This policy allows for new accommodation for gypsies and travellers to be provided as part of Local Allocations LA1, LA3 and LA5. Applications for additional sites will be determined in accordance with Core Strategy Policy CS22. The Local Allocations policies have been assessed elsewhere in this assessment for the Site Allocations document, and the CS22 was assessed previously in the SA of the Core Strategy, and so no additional assessment has been undertaken here.

6.6.9 Proposal H/1: Land r/o 186-202 Belswains Lane

This site has been assessed as having positive effects on the 'greenhouse gas emissions', 'air quality' and 'health' objectives, as it has good access to public transport (rail and bus) and is close to Apsley and Nash Mills Local Centres and Nash Mills primary school which could decrease the need to use private transport, reduce greenhouse gas and airborne emissions, and encourage use of active modes, such as walking and cycling. Part of the site is within flood zones 2 and 3 and close to the Grand Union Canal. Uncertain effects have therefore been identified for flooding and a flood risk assessment will be required. The site is predominantly previously developed land although development may involve the loss of some rear gardens. Uncertain effects have been identified for soils, as the part of the site used for commercial purposes may require remediation. Positive effects have been identified for the majority of the social and economic objectives. Provision of housing at this site should help the local economy and encourage provision of local services and to support the vibrancy of Nash Mills and Apsley local centres. The site's location also means that residents would have easy access to local facilities. However, as part of the site is in commercial use, which would be lost with its development for housing, along with associated employment opportunities, negative effects have been identified for the 'sustainable prosperity & growth' objective.

6.6.10 Proposal H/2: National Grid land, London Road

Development of this site is identified as having positive effects for the majority of the social and economic objectives. Provision of housing should help the local economy, encourage provision of local services and could support the vibrancy of Apsley local centre and Hemel Hempstead Town Centre. The proposal allows for 160 dwellings, which will be required to include a proportion of affordable housing, and the site is near to local facilities and amenities. However, negative effects have been identified for the objective 'sustainable prosperity & growth' as part of the site is within the Two Waters General Employment Area, which would be lost, along with associated employment opportunities. The site is previously developed land and development of the old British Gas site would require the remediation of contaminated land which strongly supports the objective 'use of brownfield sites'. Townscape could also be improved due to the removal of the gas holders. The site is close to 'Harrison's Moor, Boxmoor Common' wildlife site and therefore uncertain effects are identified for biodiversity. The site is within close

proximity to Hemel Hempstead train station and is also fairly close to amenities within Hemel Hempstead town centre and Apsley local centre. Use of sustainable and active modes of travel could therefore be encouraged, with potential positive effects for the 'greenhouse gas emissions' and 'health' objectives. Uncertain effects have been identified for air quality as the London Road Apsley AQMA could be affected by development of this site which lies to the north-west and which could generate additional traffic in the AQMA. The site is close to the railway line which could result in noise levels affecting health and well-being. The effect of this on the 'health' objective is considered to be uncertain.

6.6.11 Proposal H/3: Land at Westwick Farm, Pancake Lane

Development of this site has been identified as having a positive effect on many of the social and economic objectives. The site is close to local facilities in Leverstock Green, including local shops and schools. This could reduce the need to travel. There is access to public transport to Hemel Hempstead town centre. Positive effects are therefore identified for the 'sustainable locations' and 'equality and social exclusion' objectives. Provision of housing at this site should help the local economy, encourage provision of local services, and could support the vibrancy of Leverstock Green local centre. However, the site is currently a farm and employment opportunities associated with this may be affected. Negative effects have therefore been identified for the 'sustainable prosperity & growth' objective. In terms of the environmental objectives, a number of negative effects have been identified relating to biodiversity, soils and brownfield sites due to the loss of the agricultural land. Negative effects have also been identified for the objectives on 'historic & cultural assets' and 'landscape & townscape' as the site is within the "Medieval settlement of Leverstock Green" Area of Archaeological Significance, adjacent to Green Belt land, and its development may affect the quality of the local landscape. This will need to be taken into account when developing the site. The site is close to local facilities in Leverstock Green and close to a bus route. The need to travel could be reduced and sustainable modes of transport could be encouraged and therefore positive effects have been identified for the 'greenhouse gas emissions' and 'air quality' objectives.

6.6.12 Proposal H/4: Ebberns Road

The site is located along the Grand Union Canal and partly within Floodzones 2 and 3. Uncertain effects have therefore been identified for the 'water quality/quantity' and 'flood risk' objectives. The site will require a flood risk assessment. The site is moderately close to Apsley local centre and approximately 1.5 km from the town centre. This could decrease the need to travel and reduce the level of growth in ghg emissions, with positive effects therefore being identified for the 'greenhouse gas emissions' objective. The site's location moderately close to facilities has also resulted in positive effects being identified for the 'health' and 'sustainable locations' objectives. The Lawn Lane AQMA could be affected by development of this site which lies to the north-west and which could generate additional traffic in the AQMA and therefore uncertain effects have been identified with regards to air quality. The site is brownfield. Building design and layout will be required to respect the canal frontage and therefore this could improve the townscape within the area, particularly along the watercourse. Development of this site will result in the loss of employment land and local job opportunities and therefore negative effects have been identified for the 'sustainable prosperity & growth' objective

and uncertain effects identified for 'fairer access to services'. Provision of housing at this site could support the vibrancy of Apsley local centre and Hemel Hempstead Town Centre.

6.6.13 Proposal H/5: Former Hewden Hire site, Two Waters Road

The provision of housing should help support the local economy and support the vibrancy of Apsley local centre and Hemel Hempstead Town Centre, with positive effects therefore identified for 'fairer access to services' and 'revitalise town centres'. The site's location, within a main settlement and reasonably close to local facilities and amenities has resulted in positive effects being identified for the social objectives 'equality & social inclusion' and 'sustainable locations'. The site is adjacent to Boxmoor Common and development could also result in loss of some biodiversity on the site. Adverse effects have therefore been identified for the 'biodiversity' objective. The site is also adjacent to the River Bulbourne and partly within flood zones 2, 3a and 3b. Uncertain effects have therefore been identified for the 'water quality/quantity' and 'flood risk' objectives, and a flood risk assessment will be required. The site is fairly close to amenities within Hemel Hempstead town centre and Apsley local centre. Use of sustainable and active modes of travel could therefore be encouraged with positive effects on reducing growth in greenhouse gas emissions and health. The London Road Apsley AQMA could be affected by development of this site which lies to the north-west and which could generate additional traffic in the AQMA. Uncertain effects have therefore been identified for the 'air quality' objective. The small number of dwellings involved however means that any effects would be minor. Although part of the site is previously developed, future development has the potential to adversely affect the open setting of the site, with adverse effects therefore being identified for the 'landscape & townscape' objective. Development could also result in soil sealing, although effects are considered uncertain.

6.6.14 Proposal H/6: 39-41 Marlowes

Although development of this site within the town centre for housing would result in the loss of some employment land, its location could allow local people to live near to their work, it would also support the vibrancy of the town centre. Positive effects have also been identified for the social objectives 'health', 'sustainable locations' and 'equality and social inclusion' as the town centre location should allow for easy access to facilities and could encourage use of active modes of travel. The location in the town centre should have a positive effect 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 emissions. The site is brownfield and its location close to a number of listed buildings would need to be taken into account during its development, with careful design needed to mitigate any potential adverse effects. As a result of this uncertain effects have been identified for the 'historic & cultural assets' objective. The site is adjacent to flood zone 2 and would probably require a flood risk assessment. Uncertain effects have also therefore been identified for the 'flood risk' objective.

6.6.15 Proposal H/7: Leverstock Green Tennis Club, Grasmere Close

Development of this site for housing would result in the loss of a tennis club, although this is to be relocated to another location therefore any adverse effects on the local community and their health and wellbeing should be minimal. As a result no predicted effects have been identified for the 'health' and 'equality & social inclusion' objectives.

The provision of 25 dwellings supports the 'good quality housing' objective and should also support the local economy and vibrancy of the local centre, with positive effects for the 'fairer access to services' and 'revitalise town centre' objectives. Due to the small number of houses the effects would probably be minor. The site should have a positive effect on 'greenhouse gas emissions' and 'air quality' as it is close to local facilities which could decrease the need to travel and reduce the level of growth in emissions. Whilst it is some distance from the town centre, there is a bus stop close to the site. Development of the site could have an adverse effect on biodiversity, due to potential loss of trees and hedgerows. It could also adversely affect local landscape quality; however the effect on this is considered to be uncertain.

6.6.16 Proposal H/8: Land at Turners Hill

Development of this site for housing would result in the loss of greenfield land, and there would therefore be loss or damage of some habitats. The site is also adjacent to a wildlife site and increased use of this by the new residents could adversely affect the site. Negative effects have therefore been identified for the 'biodiversity' objective. Development would result in soil sealing. Development of this site could also result in minor adverse effects on local landscape quality. The site should have a positive effect on 'greenhouse gas emissions' and 'air quality' as its location close to the town centre could decrease the need to travel, encourage use of sustainable modes, and reduce growth in emissions. Encouraging walking and cycling could also have a positive effect on health. The loss of open land, which could currently be used for recreation, is however identified as having a negative effect on health, although the adjacent wildlife site would remain to provide alternative provision. The site's location close to the town centre should allow for easy access to local facilities and positive effects have therefore been identified for the 'sustainable locations' and 'equality & social exclusion objectives', although as above, loss of the open land could also have a negative effect on this latter objective. Provision of housing at this site could support the vibrancy of the town centre and also its location could allow local people to live near to their work.

6.6.17 Proposal H/9: 233 London Road

Development of this site would have mainly positive effects on the social and economic objectives, with the provision of housing helping to support the local economy, support the vibrancy of the Apsley local centre, and provide good quality housing. The site's location near to local facilities and amenities has also resulted in positive effects being identified for the 'sustainable locations', 'equality & social exclusion' and 'greenhouse gas emissions' objectives. The site is previously developed, and therefore positive effects have been identified for the 'use of brownfield sites' objective. A number of adverse effects have been identified related to the loss of small industrial unit affecting the 'sustainable prosperity & growth objective', and the site's location within an AQMA which could affect the health of the future residents. Uncertain effects have also been identified for the 'air quality' objective due to the sites location within an AQMA and the small number of properties involved.

6.6.18 Proposal H/10: Apsley Paper Trail land, London Road

Development of this site for housing would make use of previously developed land, however it would result in the loss of part of a site designated for mixed uses and creating local employment opportunities, with negative effects therefore being identified

for 'sustainable prosperity & growth'. The provision of additional housing should however help support the local economy, despite the loss of provision of local jobs at the site. It should also support the vibrancy of the Apsley local centre and Hemel Hempstead Town Centre. The site is located near to local facilities and amenities, with positive effects therefore being identified for the 'sustainable locations' and 'equality & social exclusion' objectives. Positive effects have also been identified for 'greenhouse gas emissions' due to the sites proximity to Apsley railway station, local bus routes and retail facilities, at Apsley local centre, Apsley Mills retail park and Apsley basin encouraging the use of sustainable modes of travel. The site is just to the south of the London Road Apsley AQMA and therefore its development could affect this designation. The small number of dwellings involved however means that any effects would be minor and effects on the 'air quality' and 'health' objectives are therefore uncertain. Uncertain effects have been identified for a number of the other environmental objectives, including 'biodiversity' due to the potential loss of vegetation, 'water quality/quantity' due to potential effects on the Grand Union Canal, and 'flood risk' due to its close proximity to flood zone 3. A flood risk assessment will be required.

6.6.19 *Proposal H/11: The Point (former petrol filling station), Two Waters Road*

This site is located in close proximity to Hemel Hempstead Town Centre and its development for housing could have positive effects on a number of the objectives. It could support the vibrancy of the town centre, allow people to live near to their work and provide good quality housing. However, development of this site would result in some loss of employment land and therefore negative effects have been identified for the 'sustainable prosperity & growth' objective. In addition, although its location should allow easy access to local facilities by active and sustainable modes, the Plough Roundabout could act as barrier to pedestrian movement into the centre. As a result uncertain effects have been identified for the 'equality & social exclusion', 'health', 'air quality', and 'greenhouse gas emissions' objectives. The site is close to the River Gade and development could affect this watercourse. It is also adjacent to flood zone 2 and therefore a flood risk assessment would be required. Uncertain effects have as a result been identified for the 'water quality/quantity' and 'flood risk' objectives. The site is previously developed land and high density development would be accepted. However, the site is prominently located at a town centre gateway and therefore design would need to take this into account. Uncertain effects have been identified as a result for the 'landscape & townscape' objective.

6.6.20 *Proposal H/12: Land r/o St Margaret's Way / Datchworth Turn*

This proposed housing site is greenfield land, and therefore its development has been identified as having an adverse effect on a number of the environmental objectives, including those on 'biodiversity', 'soils', 'use of brownfield sites' and 'landscape & townscape'. The latter is particularly an issue in combination with the new housing that is currently constructed nearby. Development of this site would also result in the loss of open land, which is currently used for recreation, and this is identified as having adverse and uncertain effects for the 'equality and social exclusion' and 'health' objectives. The site is located at a distance from the town centre, however it is within reasonable proximity to Leverstock Green Local Centre, a primary school, and the Maylands and Breakspear Park employment areas so positive effects have been identified for

greenhouse gas emissions and air quality due to potential reductions in the need to travel and resulting potential decreases in emissions. However, uncertain effects have been identified for the 'sustainable locations' objective, due to its location on the edge of a main settlement. The site's location close to the two employment areas could also allow people to live close to their work and the provision of additional housing should help support the local economy, both of which support the objective for 'fairer access to services'. Lastly, provision of housing at this site could support the vibrancy of the local centre at Leverstock Green.

6.6.21 Proposal H/13: Former Martindale School Boxted Road

Development of this site would result in the loss of a current vacant education site, however the provision of housing supports the objectives 'fairer access to services' and 'revitalise town centres' as it should help to support the local economy. It also supports the objective 'good quality housing'. Positive effects have been identified for the 'greenhouse gas emissions' and 'air quality' objectives as although the site is located at a distance from the town centre, it is less than 1km from a local centre, and on a bus route, which could encourage use of sustainable modes of travel to access facilities and reduce the growth in emissions. The site is previously developed land. However, part of the site is an old school playing field which may have some biodiversity value and therefore uncertain effects have been identified for biodiversity. Development on the playing fields would also result in soil sealing. Whilst positive effects against the 'landscape & townscape' objective could result from redevelopment of the area covered by the school buildings, development of the open area of this site may result in minor adverse effects on the local townscape, uncertain effects have therefore been identified for this objective overall. Careful design and landscaping will be required to safeguard the amenity for the large number of properties that back onto this site.

6.6.22 Proposal H/14: Frogmore Road

This site is currently employment land, and therefore its development for housing, has been identified as having a negative effect on the 'sustainable prosperity & growth' objective. Providing 100-150 houses should however help to support the local economy, encourage provision of local services, and support the vibrancy of Apsley local centre. The site's location close to Apsley local centre has resulted in positive effects being identified for the 'sustainable locations' objective, as well as those for 'greenhouse gas emissions' and 'air quality'. The site's good access to local facilities and public transport, could decrease the need to travel and reduce the level of growth of emissions. Maintaining and enhancing the footpath link across the site to the canal footbridge could also help to further support these objectives, along with also supporting the 'health objective'. The site is located close to both the Lawn Lane and London Road AQMAs, which could therefore be affected by its development. The site is surrounded on three sides by the Grand Union Canal and the River Bulbourne and development may therefore affect these watercourses. In addition, part of the site is within Floodzone 2 and a flood risk assessment will be required. Uncertain effects have been identified for the 'water quality/quantity' and 'flood risk' objectives as a result. The site is brownfield and capable of supporting high density development. The Lock Keeper's cottage is to be retained and building design and layout will be required to respect the canal frontage. Positive effects have therefore been identified for the 'historic & cultural assets' and 'landscape & townscape' objectives.

6.6.23 Proposal H/15: Former Police Station, c/o High Street/Kings Road

This site's location within Berkhamsted town centre and close to local facilities has resulted in positive effects being identified for a number of objectives, including 'greenhouse gas emissions', 'air quality', 'health', 'sustainable locations' and 'equality & social exclusion'. The town centre location could also allow people to live close to their work and support the vibrancy of the centre, resulting in positive effects being identified for the 'fairer access to services' and 'revitalise town centres' objectives. The site is previously developed land. Uncertain effects have been identified for a number of the environmental objectives. The site is within a Conservation Area, close to Listed Buildings and in an Area of Archaeological Significance and the design will need to take account of these designations and could provide an opportunity to benefit them. The site's prominent location in the town centre means that its development provides an opportunity to improve the townscape.

6.6.24 Proposal H/16: Berkhamsted Civic Centre and land to r/o High Street

This site's location within Berkhamsted town centre and close to local facilities has resulted in positive effects being identified for a number of objectives, including 'greenhouse gas emissions', 'air quality', 'health', 'sustainable locations' and 'equality & social exclusion'. The town centre location could also allow people to live close to their work and support the vibrancy of the centre, resulting in positive effects being identified for the 'fairer access to services' and 'revitalise town centres' objectives. Development of this site will likely result in the rationalisation and reconfiguration of the Civic Centre and depot and uncertain effects have therefore been identified for 'sustainable prosperity & growth'. The site is brownfield land. The site is within a Conservation Area, adjacent to a Listed Building and in an Area of Archaeological Significance. Careful design could allow for the site's development to benefit these designations. In addition, development of this site provides an opportunity to enhance the townscape.

6.6.25 Proposal H/17: High Street / Swing Gate Lane

This site's location close to Berkhamsted town centre, near to local facilities has resulted in positive effects being identified for a number of objectives, including 'greenhouse gas emissions', 'air quality', 'health', 'sustainable locations' and 'equality & social exclusion'. The town centre location could also allow people to live close to their work and support the vibrancy of the centre, resulting in positive effects being identified for the 'fairer access to services' and 'revitalise town centres' objectives. Development of this site will result in the loss of some commercial land therefore uncertain effects have been identified for 'sustainable prosperity & growth'. The site is brownfield land. The site is within a Conservation Area, close to Listed Buildings and in an Area of Archaeological Significance and careful design could allow for the site's development to benefit these designations.. Development of the site has the potential to improve the townscape in this area and therefore positive effects have been identified for the 'landscape & townscape' objective.

6.6.26 Proposal H/18: Miswell Lane

Development of this greenfield site has been identified as having negative effects on the 'biodiversity', 'soils', 'landscape & townscape' and 'use of brownfield sites' objectives. There would for example be loss of or damage to some habitats and minor adverse

effects on landscape quality. Positive effects have been identified for 'greenhouse gas emissions' and 'air quality' as the site's location, less than 1.5km from Tring High Street, could decrease the need to travel to access local facilities, thereby reducing growth in emissions. The site's location could also encourage use of active modes of travel having a positive effect on the health and wellbeing of residents. Positive effects have also been identified for 'sustainable locations' and 'equality & social exclusion' due to the location and ease of access to facilities on the High Street. Development of this site would result in the loss of a small currently unimplemented employment land area, with negative effects therefore being identified in relation to the 'sustainable prosperity & growth' objective. However, providing housing could support the vibrancy of the town centre and allow people to live near to their work (the site is located adjacent to a business estate) and support the local economy.

6.6.27 Proposal H/19: Western Road

Positive effects have been identified for several of the environmental, social and economic objectives. The site's location less than 1km from the High Street could reduce the need to travel, encourage use of sustainable modes of travel and therefore could have a positive effect by reducing greenhouse gas and airborne emissions. Its location is also positive in terms of the 'health', 'sustainable locations', 'equality & social exclusion' and 'fairer access to services' objectives, as it should allow for easy access to local facilities, could encourage use of active modes to access these facilities, and could allow people to live near their work. Provision of housing at this site also supports the 'good quality housing' objective and would support the vibrancy of the town centre. The site is previously developed and suitable for high density development, therefore supporting the 'use of brownfield sites' objective. Development of this site would result in the loss of some employment land and therefore negative effects have been identified for the 'sustainable prosperity & growth' objective.

6.6.28 Proposal H/20: Depot land, Langdon Street

Development of this site for housing would result in the small loss of some employment land and therefore some employment opportunities. Negative effects have therefore been identified for the 'sustainable prosperity & growth' objective. However, the site is close to town centre which could allow people to live near to their work and the provision of additional housing should help support the local economy and the vibrancy of Tring town centre. The small number of dwellings involved however means that any effects would be minor. The site's location close to the town centre could reduce the need to travel and encourage use of sustainable modes of travel and as a result positive effects have been identified for the 'greenhouse gas emissions' and 'air quality' objectives. The site's location close to the town centre has also meant that positive effects have been identified for the 'health', 'sustainable locations' and 'equality and social exclusion' objectives, due to the ease of access to facilities and potential for use of active modes of transport to access these facilities. The site is brownfield land. The site is within a Conservation Area and part of the site in an Area of Archaeological Significance. The site is also adjacent to a church. Careful design could allow for the development of this site to benefit these designations.

6.6.29 Proposal H/21: Land adjacent to Coniston Road

Development of this site greenfield site could result in minor adverse effects on biodiversity, soils, and local landscape quality. Development would result also in some loss of the amenity land provided by the field of which this site forms a part and this has resulted in a negative effect being identified for the 'health' objective. The site's location relatively close to Kings Langley Local Centre could decrease the need to travel, and encourage use of sustainable modes of travel. Positive effects have therefore been identified for the 'air quality' and 'greenhouse gas emissions' objectives. Being less than 1km from a local centre also allows easy access to facilities with subsequent positive effects on 'equality & social exclusion'. The site is also close to a secondary school. Positive effects have been identified for the economic objectives 'fairer access to services' and 'revitalise town centres' as the provision of additional housing should help support the local economy and could support the vibrancy of Kings Langley local centre.

6.6.30 Proposal H/22: Hicks Road / High Street

Development of this site would result in the loss of a small employment area, with some loss of provision of local jobs and negative effects have therefore been identified for the 'sustainable prosperity & growth' objective. The provision of additional housing however should help support the local economy and vibrancy of the village centre. The site's location within the village and close to local facilities has resulted in positive effects for the 'sustainable locations' and 'equality & social exclusion' objectives. The village is however poorly served by public transport which could result in car use for accessing facilities and services outside of the village and exacerbate existing congestion and therefore uncertain effects have therefore been identified for 'greenhouse gas emissions' and 'air quality'. Part of site is within flood zones 2 and 3a and a flood risk assessment is therefore required. Uncertain effects have therefore been identified for 'flood risk'. Development of this site has the potential to improve the townscape. The majority of the site is within a Conversation Area, although with careful design its re-development offers an opportunity to improve the quality of this area, uncertain effects have been identified for the 'historic & cultural assets' objective.

6.6.31 Proposal H/23: Watling Street (r/o Hicks Road / High Street)

This site has been assessed as having positive effects against most social objectives as the site is located within the village, close to local facilities and could improve the quality of the local villagescape. A proportion of affordable housing should be provided and the additional housing should also help the local economy and help support the vibrancy of the village centre. The effects of developing the site on the 'greenhouse gas emissions' and 'air quality' objectives are uncertain as although the site is close to local facilities and could encourage walking and cycling; there are poor public transport connections in the village which may result in car use, exacerbating congestion and increasing airborne emissions. The 'sustainable prosperity and growth' objective would be adversely affected by development of the site as this would result in the loss of some remaining employment land. There would also be the loss of provision of local jobs at the site.

6.6.32 Proposal H/24: Garden Scene Nursery, Chapel Croft, Chipperfield

Developing the site would be likely to have adverse effects against the 'sustainable locations' objective as it is not located within a main settlement and although close to

services and facilities in the village, these are limited in nature. In terms of the 'greenhouse gas emissions' objective, this could encourage private car use to access services and facilities not available in the village, leading to an increase in airborne emissions. The effect of this on 'air quality' is uncertain, however it is possible that the associated increase in car use could exacerbate existing air quality issues in trip destination areas. Although the site is previously developed land, it is located within the Green Belt and partly within a Conservation Area. The effects on this are uncertain however, re-development offers an opportunity to improve the quality of the area and the local village scape. The proposal of a new community room at the site is forecast to have a positive effect on the social objectives 'equality and social exclusion' and 'community identity & participation'. Additional housing, some of which will need to be affordable housing, could help to support the vibrancy of the village site, although the small nature of the site means that the effects are likely to be minor. The sustainable prosperity and growth objective will be adversely affected as the closure of the garden centre will result in the loss of local employment opportunities, although some will be retained in the post office and shop. This may also have an impact on the 'fairer access to services' objective, but the effects are unknown.

6.7 Meeting Community Needs

6.7.1 Policy SA10: Education Zones

This policy is forecast to have positive effects on 'equality and social exclusion' with the provision of further school places for the local community. This could also have a positive effect on 'health', 'greenhouse gas emissions' and 'air quality' as it could reduce the distance needed to travel to school potentially allowing for use of active modes of travel such as walking and cycling, and reducing the levels of airborne emissions. Adverse effects have been forecast against the 'biodiversity' and 'soil' objectives as development may result in a loss of greenfield land and therefore loss and damage to some habitats and soil sealing. EZ/1 Nash Mills includes a section of the Grand Union Canal/River Gade wildlife site. There is potential for the policy to impact 'water quality/quantity' and 'flood risk' as the EZ/1 Nash Mills includes a section of the Grand Union Canal. Development could impact the waterway and would require a flood risk assessment. Development of EZ/3 North West Berkhamsted is identified as having an uncertain effect on 'landscape and townscape' as the site is located adjacent to an AONB and any development could affect the special qualities of this designation. As all three of the Education Zones are located within the Green Belt, this may negatively impact landscape quality. EZ/2 and EZ/3 are also within the "Ashlyns Hall, Berkhamsted" Historic Park & Garden, and the "Berkhamsted, medieval castle & town, prehistoric & Roman occupation". These designations need to be considered should these sites be further developed.

6.7.2 Proposal C/1: Land West of Tring

Development at this site is forecast to have adverse effects against the environmental objectives 'biodiversity' and 'soils' as it would involve the loss of some greenfield land and therefore loss and damage to habitats. It would also result in some soil sealing. The landscape could also be adversely affected due to the site location within the Chilterns AONB. The site will need to be well-landscaped and the ancillary building and car park well-designed to minimise any potential adverse effects on this designation. As the site is on the edge of Tring, this is a negative for the 'sustainable locations' objective, although

the site is adjacent to a new housing development. The proposed use of this site, as a detached extension to Tring Cemetery supports the 'equality and social exclusion' and 'community identity and participation' objectives.

6.7.3 Proposal C/2: Amaravati Buddhist Monastery, St Margarets Lane, Great Gaddesden

Positive effects have been forecast against the 'use of brownfield sites' and 'community identity and participation' objectives as development at this site involves replacing existing buildings on the same built footprint and continued use and modernisation of the site for Monastic purposes. The site is close to Listed Buildings, therefore re-development will need to take this into account when designing the replacement buildings. The site's location within the Chilterns AONB will also need to be taken into account in the design, layout and size of the redevelopment to ensure that adverse effects on this designation and the landscape are minimised. The site is close to St Margaret's Copse Wildlife Site, however as no intensification of use or expansion into the rural parts of the site is proposed no effects against the 'biodiversity' objective are predicted.

6.7.4 Proposal L/1: Market Square and Bus Station, Marlowes / Waterhouse Street

Development at this site is forecast to have a positive effect on the majority of social objectives as the site would be providing a mix of uses, including leisure, food, residential and offices in a central location. This could also reduce the need to travel and encourage the use of more active modes of transport such as walking and cycling to access facilities. This could promote better health and reduced greenhouse gas emissions. The location of the site close to the River Gade means there could potentially be adverse effects on water quality and flood risk which will need to be monitored and assessed. The site is also located close to the Water Gardens Historic Park and Garden and therefore its development could affect this designation. Careful design will be needed to mitigate any adverse effects.

6.7.5 Proposal L/2: Durrants Lane / Shootersway, Berkhamsted

Positive effects have been forecast against the social objectives 'health' and 'equality and social exclusion' as the development would provide formal and informal playing fields that can be accessed by the local community for recreational activities. The site is close to existing and potential future housing sites which supports the 'sustainable locations' objective and the provision of green infrastructure should have a positive effect on the landscape and townscape although the site is within the Green Belt. Although the site is within the "Woodcock Hill, Berkhamsted" Historic Park and Garden, the type of development planned should not adversely affect this designation.

6.7.6 Proposal L/3: Land west of Local Allocation LA5: Icknield Way

Development at this site has been forecast to have positive effects against the 'biodiversity', 'landscape and townscape', 'health' and 'equality social exclusion' objectives. The development should provide public open space for recreation and it may also provide sports pitches. This should not adversely affect the Chilterns AONB designation which the site is located within and providing new native tree planting and

wildlife habitats, along with retaining and enhancing hedgerows and tree belts should enhance the biodiversity at the site. The site will provide green infrastructure and will also allow for the provision of an east-west footpath/cycleway from the new development area to the A41 roundabout. This site could have an adverse effect on the 'sustainable locations' objective as although the site is adjacent to new housing development, it is on the edge of Tring.

6.8 Assessment by SA/SEA topics areas

The following section summarises the assessment of the Site Allocations DPD against the SA/SEA objective topics. This includes the consideration of cumulative, synergistic and secondary effects.

6.8.1 Biodiversity

Development of some of the sites allocated within the plan will result in loss of greenfield land which could have some adverse impacts on habitats and species due to landtake, habitat fragmentation and urban pollution issues. The significance of the effect will be dependent on the biodiversity value at individual sites. Several of the sites are part of adjacent to wildlife sites (such as MU/2, H/2, H/5, H/8) and increased usage of these sites by the new residents could have adverse effects. The sites proposed are generally well distributed within and between the main settlements of the Borough. This means that there should not be any significant adverse cumulative effects on individual wildlife sites – which might have been the case if development sites were clustered close to a site of nature conservation importance.

Provision of new or maintaining existing open spaces, retaining trees and hedgerows and use of native species in planting are some of the mitigation measures proposed and these could help to minimise the effects at some of the sites where such measures are proposed (such as MU5, LA1, LA2, LA3, LA4, H/8). The requirements of Core Strategy Policy CS26: Green Infrastructure will also help to ensure that adverse effects are mitigated and gains realised.

Some of the potential environmental improvements outlined within policies SA5 (General Employment Areas) and SA6 (Employment Areas in the Green Belt) may have positive effects on biodiversity, depending on the improvements made.

6.8.2 Water, flood risk, soil

A number of the sites are located adjacent to watercourses, including the River Gade, the Grand Union Canal and the River Bulbourne (including MU/1, MU/7, H4, H5, H/10, H/11, H14, EZ/1, L/1) and development of the sites could give rise to an adverse effect. Water quality of these water courses will need to be controlled and monitored. Some of the potential environmental improvements outlined within policy SA5 (General Employment Areas) may have positive effects on water quality of the River Gade and Grand Union Canal, depending on the improvements made. The requirements of Core Strategy Policy CS31: Water Management will also help to mitigate effects. Where there are effects on local water quality, there could be associated effects on biodiversity, these being two closely inter-related topics.

In relation to flood risk, several of the sites are within, partly within or adjacent to flood zones 2 or 3 (including MU/7, T1, T2, T18, T19, H/1, H/4, H/5, H/6, H/10, H/11/ H/14,

H/22, EZ/1, L/1). Development of these sites would result in an increase in impermeable surfaces that may have the potential to increase risk of localised flooding. Flood risk assessments are therefore likely to be required for these sites and uncertain effects have been identified for this objective in some cases. As for water quality, the requirements of Core Strategy Policy CS31: Water Management will help to mitigate effects.

Development of some of the sites allocated within the plan will result in loss of greenfield land which could have adverse impacts on soils due to soil sealing and soil loss. In some cases (e.g. H/2) development of the site will require the remediation of contaminated land before any construction activity commences. This will have localised positive effects in relation to the SA soil objective.

6.8.3 Climatic factors and air quality

A number of the proposed sites are located within or close to town or local centres, which could encourage use of sustainable modes of travel to access facilities. This could decrease the growth in greenhouse gas and airborne emissions of other pollutants. For some of the sites, which are located further away from local or town centres and/or have poor public transport links, and that might encourage private car use, the effects on greenhouse gas and airborne emissions are more uncertain and in some cases have been assessed as negative. For a number of the larger sites, where there will be provision for new local facilities within the site (such as LA3), these effects could be reduced which would therefore be potentially positive against the 'greenhouse gas' and 'air quality' objectives.

Through enhancing footpath and cycle networks, and supporting improvements to the bus network Policy SA3 (Improving Transport Infrastructure) is identified as having positive effects on reducing emissions. In addition, the majority of the individual transport proposals are also forecast as positive for the 'greenhouse gas' and 'air quality' objectives.

Some of the sites are located within or adjacent to Air Quality Management Areas (AQMA) (such as H/5, H/9, H/10, H14) which could be adversely affected by any additional traffic generated, however the sites are distributed such that there should not be significant increases in traffic at individual AQMA.

6.8.4 Cultural heritage and landscape

Development of the greenfield allocations will inevitably have some adverse effects on local landscape character, although the requirements of Core Strategy Policy CS25: Landscape Character will ensure that effects are minimised. In some cases (e.g. H/2) new development will provide the opportunity to improve local landscape and townscape, with Core Strategy Policy CS12: Quality of Site Design providing the necessary drivers. The cluster of development sites in Hemel Hempstead town centre provide the opportunity for cumulative positive effects to arise in the long term, with these new developments contributing towards the objectives of the Town Centre Masterplan.

The site selection process has ensured that the heritage assets of the Borough have been taken into consideration when allocating sites. The avoidance of key designations and the requirements of Core Strategy Policy CS27: Quality of the Historic Environment will ensure that there will be no significant adverse effects on the Borough's historic environment. The redevelopment of sites in the area around the Water Gardens Historic

Park and Garden provide the opportunity for cumulative positive effects on the setting of this designated area.

6.8.5 Population and human health

The locations and scale of the sites proposed for inclusion in the DPD, along with the associated policy elements relating to the details of individual sites (e.g. provision of open space) will help towards achieving the 'population' and 'health' objectives. The transport proposals should assist in providing more opportunity for local residents to take up active modes of travel to and from the town and local centres.

6.8.6 Equity, housing, communities and crime

The number and scale of the sites proposed for new housing development will deliver the housing requirement adopted in the Core Strategy and therefore furthers the delivery of the positive effects predicted in the Core Strategy SA. The Core Strategy also requires an affordable housing contribution from all new housing developments and therefore the effects of the site specific policies/allocations have no additional cumulative effects on the 'housing' objective.

The detailed development proposals in the Site Allocations DPD for three of the local allocations that were adopted in the Core Strategy (LA1, LA3 and LA5) require provision of pitches for the gypsy and traveller communities. This helps to support the 'equity' objective.

The open space and community facilities that form part of the larger proposals will help to enhance the overall provision of such facilities in the Borough.

6.8.7 Economic factors

Site allocations associated with the 'Supporting Economic Prosperity' theme of the DPD will help to deliver the Core Strategy's requirements for this theme across the Borough. The mixed-use sites proposed will help to help to improve accessibility to jobs by siting employment and population centres in close proximity to one another.

Where site allocation proposals change the site from employment use to other uses (e.g. housing) some adverse effects against the 'economic' objective are likely due to the loss of existing jobs, or the loss of the potential for a redundant employment site to provide jobs in the future. Where new housing will help to support existing facilities and services that make up the local economy positive effects have been predicted.

The redevelopment of town centre sites and the improved sustainable travel links that are planned should help improve the vibrancy of the town centres.

6.9 Cross boundary effects

The development of site allocations in Kings Langley will result in some cross-boundary effects on the part of Kings Langley to the east of the Grand Union Canal that lies in Three Rivers District. Similarly any development on the Three Rivers side could have an effect on the Dacorum. As part of the adopted Three Rivers Core Strategy, approximately 100 new dwellings are proposed in Kings Langley over the plan period (from 2011 to 2026). The Dacorum Site Allocations DPD would add a further 12 new houses (Site H/21) to this number.

6.10 Difficulties encountered in undertaking the assessment

Although a range of site level, local and regional information sources and studies were available to inform the assessment process, without sufficient detailed information it has not been possible to predict some effects of the policies and proposals against certain SA objectives. These uncertainties are likely to be reduced as more detail is provided through development briefs and individual planning applications.

6.11 Mitigation and recommendations

The SEA Regulations require the SA process to identify suitable mitigation measures for any significant adverse effects predicted for the policies. This is also an important component of the SA Report. Mitigation measures and recommendations for improvements can be found in the detailed assessment matrices in Appendix A.

7 Monitoring

7.1 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.

The monitoring measures for this DPD will be aligned with the measures developed for the Adopted Core Strategy. The measures to be used to monitor the Site Allocations DPD will be finalised on adoption of the Plan.

7.2 Monitoring requirements

The assessment identified one significant positive effect on the 'use of brownfield sites' objective, related to Proposal H/2: National Grid Land. Additionally, various uncertain effects were identified.

Monitoring indicators will be drawn from those identified in the Core Strategy SA Statement, along with any site specific measures that are required. For example, for Proposal H/2 a measure may be included that requires either a condition or remediation plan being in place/agreed followed by implementation and completion of the actual works.

The final monitoring plan will be published in the SA/SEA Statement, alongside the adopted Site Allocations DPD.

8 Next steps

8.1 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 NGOs, and community groups for example). This SA Report will be published for consultation alongside the Pre-Submission Site Allocations DPD and will be made available to all interested parties so that they can provide a response to the contents of the Pre-Submission Site Allocations DPD 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: strategic.planning@dacorum.gov.uk

By post: Strategic 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 **5th November 2014**.

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.

8.2 Submission and Examination

Following the end of the consultation, the SA will need to assess any substantive changes made to the Site Allocations DPD as it is finalised prior to Submission.

If further SA has been undertaken an SA Report Addendum will be prepared at the Submission Stage and will be submitted alongside the Site Allocations DPD and other supporting documentation for an independent examination to be undertaken by a planning inspector.

If major changes are required to be made to the DPD during the examination process, further SA Report addenda may need to be produced so that the sustainability implications of these changes can be understood.

8.3 SA/SEA Adoption Statement

When the Site Allocations DPD is adopted it will be accompanied by an SA/SEA Statement.

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

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

8.4 Post Adoption

Following the adoption of the Site Allocations DPD 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 Dacorum Development Programme and be published as part of the Annual Monitoring Report for the programme which will be the responsibility of Dacorum Borough Council.