



Dacorum Borough Council

Local Plan

Issues and Options Consultation Sustainability Appraisal Working Note

October 2017



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Table of Contents

1	Introduction	1
1.1	Background	1
1.2	Local Plan Issues and Options	1
1.3	The SA/SEA Process	2
1.4	Habitats Regulations Assessment	4
2	Sustainability Issues and Local Plan Issues	5
2.1	Key environmental and sustainability issues within the Borough	5
2.2	Issues for the Local Plan	5
2.3	Relationship between the SA/SEA issues and objectives and the Local Plan Issues	6
2.4	SA Framework	14
3	Assessment of the Vision and Plan Objectives	15
3.1	Introduction	15
3.2	Local Plan Vision and Objectives	15
3.3	Compatibility Assessment	16
4	Assessment of the Options	19
4.1	Introduction	19
4.2	Methodology	20
4.3	Growth Options	21
4.4	Rejected Options	24
5	Conclusions and Next Steps	29
5.1	Conclusions and Recommendations	29
5.2	Next Steps	30

Appendix A: SA Framework

Appendix B: SA assessments

1 Introduction

1.1 Background

Dacorum Borough Council is in the early stages of preparing a new Local Plan which will provide a planning strategy for the Borough up to 2036. The new Local Plan will incorporate strategic policies, development management policies and site allocations into a single document, replacing those in the Core Strategy (adopted September 2013), the Site Allocations DPD (adopted July 2017) and the 'saved' parts of the Dacorum Borough Local Plan 1991-2011 (adopted May 2004).

During its preparation this new Local Plan must be subject to both Sustainability Appraisal (SA) and Strategic Environmental Assessment (SEA) under the 'Planning and Compulsory Purchase Act' (2004) and 'The Environmental Assessment of Plans and Programmes Regulations' (2004)¹ respectively.

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 Plan against key sustainability issues.

This Sustainability Appraisal Working Note has been produced to accompany the Issues and Options Consultation in order to provide an assessment of the likely environmental, social and economic effects of the options being considered for delivering growth in the Borough. Comments relating to the SA Working Note can be provided as part of the consultation process.

A second SA Working Note has also been prepared in relation to the Schedules of Site Appraisals that the Council has prepared to be published alongside the Issues and Options Paper. The Schedules include sites in the Green Belt or Rural Area that are on the edge of the towns and large villages and have a potential capacity of 50 dwellings or more as well as some sites that could deliver employment development, including mixed-use development. That second SA Working Note includes assessments of all the sites included in the Schedules.

Independent consultants TRL Ltd have been appointed by the Council to undertake Sustainability Appraisal (SA) and Strategic Environmental Assessment (SEA) in support of the new Local Plan.

1.2 Local Plan Issues and Options

'Shaping growth in Dacorum', the Issues and Options document for Dacorum Borough's new Local Plan has been prepared for consultation during the Regulation 18 stage of the Local Plan making process.

The main purpose of the Issues and Options document is to explore the growth needs in Dacorum and how far these needs should be met. This includes setting out the principles that are proposed to be used when choosing broad locations for new development.

The document is divided into three main sections:

- A vision and objectives for the new Local Plan;
- Issues facing Dacorum when planning for growth, covering the topics of 'Our towns, villages and countryside'; 'Homes'; 'Our economy'; 'Infrastructure'; and 'Our environment'; and

¹ This regulation implements European Directive 2001/42/EC, known as the Strategic Environmental Assessment (SEA) Directive

- How this future growth could be accommodated, covering:
 - What levels of housing growth should we consider?
 - What principles should be used when choosing growth locations?
 - How should future growth be distributed?
 - What are the growth options?
 - Option 1 – Draft Government figure – with 3 ‘sub-options’ for the distribution of this growth.
 - Option 2 – Locally assessed need – with 3 ‘sub-options’ for the distribution of this growth.
 - Option 3 – Upper Government figure

The Issues and Options document includes a series of questions designed to seek appropriate feedback on the issues raised and the approaches and options put forward for tackling the issues, and delivering growth in the Borough.

1.3 The SA/SEA Process

The process for undertaking the SA/SEA process for Local Plans is summarised in Figure 1-1.

During Stage A of the process a scoping exercise was undertaken in order to identify the key issues and opportunities within the Borough, which can then inform the development of the new Local Plan, and to develop the SA/SEA methodology for undertaking the assessment of the Plan. A Scoping Report was then prepared and published for consultation from 23rd March to 5th May 2017.

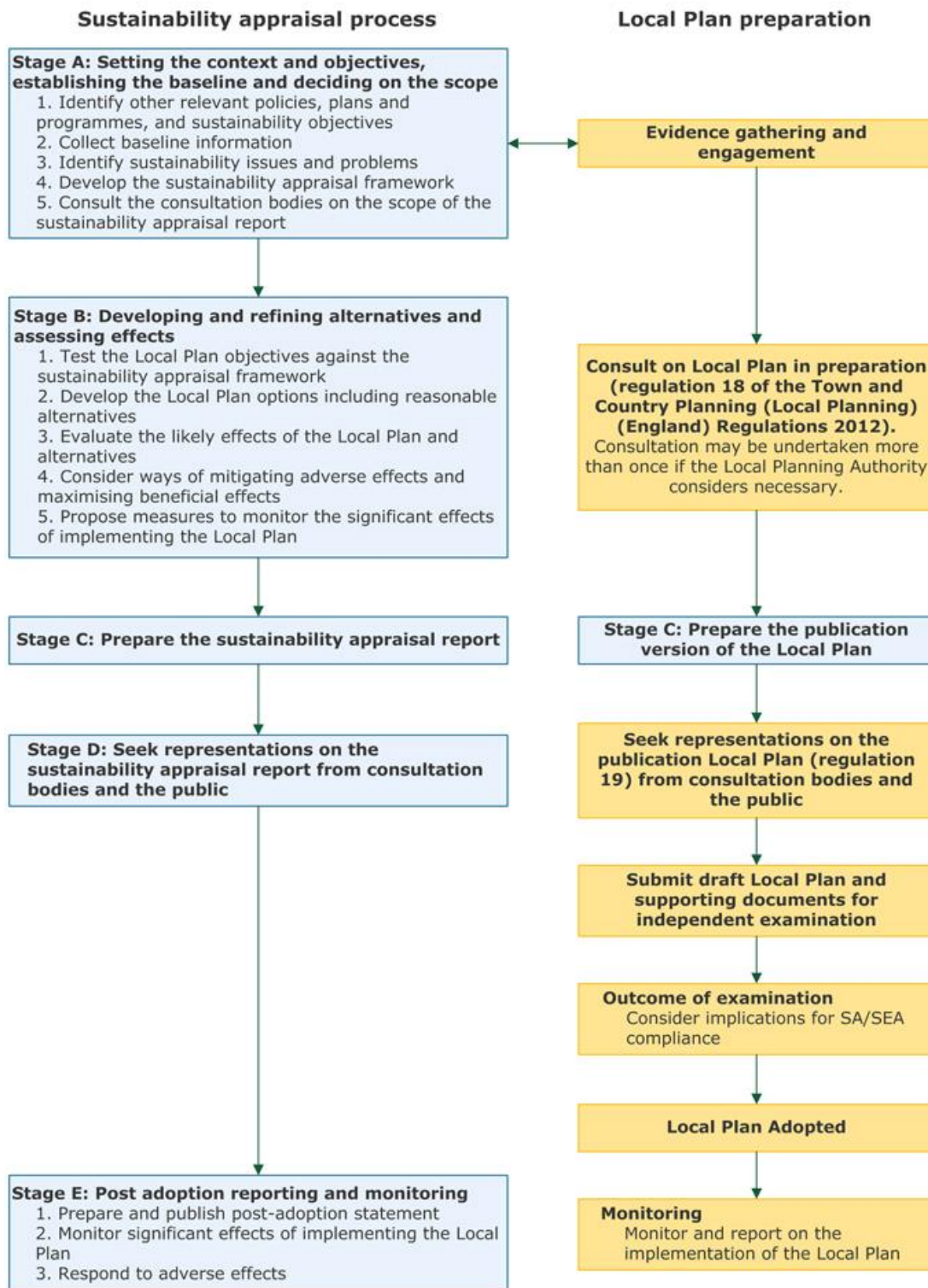
The Scoping Report provided information relating to the current Environmental and Sustainability Context for the Borough as well as providing an indication of the likely evolution of the baseline without the Plan. From the issues identified a draft framework of SA Objectives was prepared. The purpose of the SA Framework is to provide a way in which the effects of the Plan can be described, analysed, and compared. The SA Framework which was originally developed in 2006, formed the ‘starting point’ for the SA Framework for the new Local Plan

Following the consultation the Scoping Report has been updated to take on-board comments received. The updated Scoping Report Update (October 2017) provides a summary of the consultation responses received along with an explanation of how each comment has been taken into account. The Scoping Report Update is available on the Council’s website at the following link:

<http://www.dacorum.gov.uk/home/planning-development/planning-strategic-planning/new-single-local-plan/technical-work-for-the-early-partial-review>

Figure 1-1: Relationships between Local Plan preparation and SA processes

(Source: Planning Practice Guidance, 2016)



This SA Working Note forms part of Stage B of the SA/SEA process.

The framework of SA objectives provided in the Scoping Report, which was updated as a result of the consultation, has been used in the assessment of the options that are being considered as part of the development of the new Local Plan. The SA Working Note provides the following information relating to the SA/SEA of the Issues and Options:

- An analysis on the relationship between the Issues identified by the SA/SEA and the Issues identified by the Council in the Issues and Options document (Section 2);
- A compatibility assessment of the proposed Vision and Objectives for the Local Plan against the SA Objectives (Section 3);
- An assessment of the growth options identified by the Council against each of the SA Objectives (Section 4); and
- The reasons for rejecting options which the Council do not consider to be 'reasonable alternatives' (Section 4).

1.4 Habitats Regulations Assessment

The Council is required by legislation to undertake a Habitats Regulations Assessment (HRA) on the Local Plan, in order to determine whether there may be 'likely significant effects' on European Sites of importance for nature conservation from the Local Plan, either alone or in combination with other plans or projects.

Within Dacorum Borough there is one such European Site, this being the Chilterns Beechwoods Special Area for Conservation (SAC) which has 'sub-sites' at Ashridge and south-west of Tring. There are also other European Sites within 15km of the Borough.

Whilst the HRA for the Core Strategy and Site Allocations DPD did not identify any significant issues for any European sites, for this new round of Local Plan development a new HRA will need to be undertaken in order to determine whether this remains the case. The new HRA will be informed by the previous HRA.

The HRA will be undertaken as a separate process to the SA/SEA, and reported separately. However there are links between the two assessments and one will inform the other.

At this Issues and Options stage there is not the necessary level of Plan detail to undertake HRA. Instead, the process will be initiated during the next stage in the development of the Local Plan.

2 Sustainability Issues and Local Plan Issues

2.1 Key environmental and sustainability issues within the Borough

During Stage A, the review of plans and programmes affecting the Borough, and the collation of the baseline data informed the identification of a series of environmental and sustainability issues that could be addressed by, or affect the strategies and measures developed in the Local Plan. Such issues, problems and opportunities have been identified through:

- Review of relevant policies and plans;
- Review of the baseline data; and
- Responses to the Scoping Report consultation.

2.2 Issues for the Local Plan

Separately to the issues identified by the SA/SEA, the Dacorum Local Plan Issues and Options document 'Shaping growth in Dacorum' also identifies a series of issues facing Dacorum when it comes to planning for the growth needs of the Borough. These issues identified under six topic areas are as follows:

THE ROLE OF OUR TOWNS, VILLAGES AND COUNTRYSIDE

- Issue 1 – How should we distribute new development?
- Issue 2 – What is the role and function of the Green Belt?
- Issue 3 – What is the role and function of the wider Rural Area?
- Issue 4 - How will we select development sites?
- Issue 5 - How will people get around?
- Issue 6 - How can maximise the quality of new development?
- Issue 7 – What other polices are required to help us control and guide new development?

HOMES

- Issue 8 – How many new homes need to be provided by 2036?
- Issue 9 – What land is available for the new homes needed?
- Issue 10 – What types of homes do we need to plan for?
- Issue 11 – How should the delivery of housing sites be managed?

OUR ECONOMY

- Issue 12 - How should our local economic area be defined?
- Issue 13 – How many new jobs are needed in Dacorum by 2036?
- Issue 14 – What additional sites should we set aside for office, industrial and warehousing development?
- Issue 15 – What additional retail development is required and where should this be?
- Issue 16 – What approach should the new Local Plan take to tourism?

OUR ENVIRONMENT

- Issue 17 - How can we protect the natural environment?
 - Issue 18 - How can we protect the historic environment?
 - Issue 19 - How can we ensure natural resources are used efficiently and pollution and flood risk minimised?
 - Issue 20 – How can we help reduce the impacts of climate change?
-

INFRASTRUCTURE

- Issue 21 – What are the area’s physical infrastructure needs?
- Issue 22 – What are the area’s social infrastructure needs?
- Issue 23 – What are the area’s green infrastructure needs?
- Issue 24 – How will new infrastructure be funded?

GROWTH OPTIONS

- Issue 25 - What levels of housing growth should we consider?
- Issue 26 – What principles should be used when choosing growth locations?
- Issue 27 - How should future growth be distributed?
- Issue 28 - What are the growth options?

2.3 Relationship between the SA/SEA issues and objectives and the Local Plan Issues

Due to their ‘factual’ and in some case ‘procedural’ nature, it has not been possible to undertake an assessment on the Local Plan Issues. Instead the SA/SEA has undertaken an analysis to consider whether the Issues identified for the Local Plan provide recognition/coverage of the issues identified by the SA/SEA – insofar as much the Local Plan can help to address those issues.

Table 2-1: Coverage of the SA objectives by the Local Plan Issues

Local Plan Issues	SA Objectives (abridged)															
	SA1 Biodiversity a& geodiversity	SA2 Water quality/quantity	SA3 Flood risk	SA4 Climate change	SA5 Air quality	SA6 Soils	SA7 Resource efficiency	SA8 Historic environment	SA9 Landscape and townscape	SA10 Health and wellbeing	SA11 Sustainable locations	SA12 Community cohesion	SA13 Housing	SA14 Sustainable prosperity	SA15 Employment and skills	
The role of our towns, villages and countryside																
Issue 1	+		+	+	+	+		+	+	+	+	+	+	+	+	
Issue 2									+			+				
Issue 3									+			+				
Issue 4	This is a procedural issue that can't be linked to the SA objectives & issues															
Issue 5				+						+	+	+				
Issue 6							+	+	+							
Issue 7	This is a procedural issue that can't be linked to the SA objectives & issues															
Homes																
Issue 8														+		
Issue 9														+		
Issue 10										+		+	+			
Issue 11														+		
Our economy																
Issue 12															+	+
Issue 13															+	+
Issue 14															+	+
Issue 15															+	+
Issue 16															+	+
Our environment																
Issue 17	+	+			+	+			+							
Issue 18								+								
Issue 19			+	+	+	+	+			+						
Issue 20			+	+												
Infrastructure																
Issue 21							+			+		+		+		
Issue 22										+		+				
Issue 23	+								+	+		+				
Issue 24	This is a procedural issue that can't be linked to the SA objectives & issues															
Growth options																
Issue 25											+		+	+	+	
Issue 26	This is a procedural issue that can't be linked to the SA objectives & issues															
Issue 27											+		+	+	+	
Issue 28											+		+	+	+	

Key: + denotes where a plan issue covers topics/issues relating to the SA/SEA objectives

As can be seen from Table 2-1 all 15 of the SA/SEA objectives are picked up by at least one of the Local Plan Issues.

Table 2-2 presents the key sustainability issues and opportunities for Dacorum, as identified in the SA/SEA Scoping Report for each topic covered, and lists the Local Plan Issues that relate to each of the SA/SEA topics.

Table 2-2: Key sustainability issues and opportunities

Biodiversity, including flora and fauna, and Geodiversity
<ul style="list-style-type: none"> • Opportunities are to link the ‘Living Landscape’ areas of the Gade Valley and Berkhamsted Common, as well as to provide an appropriate landscape/ecological buffer to Ashridge in the face of planned growth of Hemel Hempstead. Transport corridors such as the A41 often represent key wildlife corridors and opportunities to provide enhanced habitat linkages. • Ashridge SAC/SSSI, Tring Park, Tring Reservoirs and the Grand Union Canal are all reported to be experiencing visitor pressures. As the urban population increases, pressures on access to the countryside and these key attractions will increase. • Maintaining, restoring and expanding BAP habitats • Enhancing Green Infrastructure at a local level and a strategic level with neighbouring authorities. • 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, for example chalk river valleys like the River Bulbourne. • Linking and connecting isolated and fragmented habitats, important species populations and landscape features through creation of wildlife corridor (greenway) networks. • Promote the use of management agreements for designated sites, where this can be linked to development.
<p>The issues above identified in the Sustainability Appraisal are aligned with the following Local Plan issues:</p> <p><i>Issue 1 – How should we distribute new development?</i></p> <p><i>Issue 17 - How can we protect the natural environment?</i></p> <p><i>Issue 23 – What are the area’s green infrastructure needs?</i></p>
Climatic factors
<ul style="list-style-type: none"> • Carbon emissions per capita for Dacorum are above the regional average but below the national average. • The future climate in Hertfordshire is predicted to become warmer, with drier summers and wetter winters. • The combined effects of climate change, population growth and development needs will increase pressures on the natural environment. These impacts must be reduced through the prudent use of natural resources, encouraging renewable energy production, the effective disposal of waste, the sustainable design of new development and careful land management. • Development can help to mitigate and adapt to the impacts of climate change, through sustainable design and construction and reducing the need to travel, particularly by car. • Climate change is likely to affect water resources (supply and demand), alter habitats, affect air quality and public health and increase flood risk and likelihood of drought conditions. These could all adversely impact upon the Borough’s economy. • Greenhouse gas emissions are likely to lead to significant climate changes which could have significant implications for other aspects of quality of life. • Development proposals could exacerbate flooding elsewhere in catchment and this needs to be avoided by adopting the sequential approach to site selection advocated in the NPPF. • Implement Sustainable Drainage Systems – porous surfaces, greenspace, wetlands, flood storage areas, urban forestry to help manage some of the effects from climate change. • Opportunity to decrease greenhouse gas emissions through reduced reliance on the private car.
<p>The issues above identified in the Sustainability Appraisal are aligned with the following Local Plan issues:</p> <p><i>Issue 1 – How should we distribute new development?</i></p> <p><i>Issue 5 - How will people get around?</i></p> <p><i>Issue 19 - How can we ensure natural resources are used efficiently and pollution and flood risk</i></p>

<p><i>minimised?</i> <i>Issue 20 – How can we help reduce the impacts of climate change?</i></p>
<p>Air quality</p>
<ul style="list-style-type: none"> • 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. • Ensuring that potentially polluting processes incorporate pollution minimisation measures. • Ensuring that potentially polluting developments are not located close to sensitive developments (e.g. care homes, schools etc.) or in areas of existing poor air quality. • Ensuring that sensitive developments are not located in areas of poor air quality. • Promoting the development of Green Travel Plans. • Improving cycle and pedestrian routes and links and cycle parking facilities to encourage the use of non-motorised transport. • Promoting low emission vehicles, such as through the provision of electric vehicle charging infrastructure. • Reducing the need to travel through developing in sustainable locations.
<p>The issues above identified in the Sustainability Appraisal are aligned with the following Local Plan issues: <i>Issue 1 – How should we distribute new development?</i> <i>Issue 17 - How can we protect the natural environment?</i> <i>Issue 19 - How can we ensure natural resources are used efficiently and pollution and flood risk minimised?</i></p>
<p>Landscape and Townscape</p>
<ul style="list-style-type: none"> • There is increasing pressure on the landscape due to increased visitor numbers and increased access routes, pressure from development in areas surrounding the Chilterns (including High Speed Two rail), increased water extraction due to population increases, loss of traditional farming practices such as grazing and the livestock sector, and influence of climate change. • Light pollution is rapidly increasing and tranquillity is rapidly decreasing in the East of England. New lighting should be designed and selected that minimises light pollution. • Ensuring that landscape proposals for development schemes reflect local landscape character. • Ensuring that the character, diversity and local distinctiveness of all the landscapes of the Borough are maintained, enhanced or restored, in particular the Chilterns AONB. • Preserve, and appropriately manage development within, the Green Belt • Ensuring that access to landscape character areas is socially inclusive. • The expansions of Luton and Heathrow Airport could lead to more noise related issues and complaints.
<p>The issues above identified in the Sustainability Appraisal are aligned with the following Local Plan issues: <i>Issue 1 – How should we distribute new development?</i> <i>Issue 2 – What is the role and function of the Green Belt?</i> <i>Issue 3 – what is the role and function of the wider Rural Area?</i> <i>Issue 6 - How can maximise the quality of new development?</i> <i>Issue 17 - How can we protect the natural environment?</i> <i>Issue 23 – What are the area’s green infrastructure needs?</i></p>
<p>Historic Environment</p>
<ul style="list-style-type: none"> • The historic built environment, including heritage assets, is under pressure from development and regeneration and associated traffic congestion, air quality and noise pollution. This puts heritage assets at risk of neglect or decay. The threat of infilling and replacement with new buildings and the erosion of historic features in the public realm need to be carefully mitigated and managed. • Archaeological remains, both known and unknown have the potential to be affected by new development. • 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.
- The historic environment can make a significant contribution to the success of development. Opportunities to conserve and enhance the historic environment including designated and non-designated heritage assets and their settings should be sought where possible through sustainable development proposals.
- Development may result in significant loss or erosion of the landscape or townscape character or quality, which is likely to also have significant impact (direct and or indirect) upon the historic environment and people's enjoyment of it.

The issues above identified in the Sustainability Appraisal are aligned with the following Local Plan issues:
Issue 1 – How should we distribute new development?
Issue 6 - How can maximise the quality of new development?
Issue 18 - How can we protect the historic environment?

Material Assets

- Waste production and disposal is a growing problem. Production of waste and disposal of this waste is becoming increasingly difficult, with diminishing numbers of suitable sites for landfill disposal. Hertfordshire as a county is having to use sites in Buckinghamshire and Oxfordshire in order to meet its needs. There is however, an increasing move towards Energy Recovery Facilities (ERF) rather than landfill.
- There is the opportunity to promote the use of renewable resources, protect natural resources and reduce waste.
- Previously developed land is a finite source that is being depleted over time. This will put greater pressure to build on greenfield sites and to increase housing densities on these sites.
- Supporting a reduction in the amount of waste deposited in landfill.
- Supporting alternative methods of waste management, e.g. minimisation and recycling by incorporating facilities within development schemes.
- Encouraging re-use and recycling of construction waste in development schemes through the use of planning conditions.
- Promoting development on previously developed land and maximise the efficient use of land.
- Avoiding the sterilisation of mineral resources.

The issues above identified in the Sustainability Appraisal are aligned with the following Local Plan issues:
Issue 6 - How can maximise the quality of new development?
Issue 19 - How can we ensure natural resources are used efficiently and pollution and flood risk minimised?
Issue 21 – What are the area's physical infrastructure needs

Soils

- Protecting the best and most versatile agricultural land.
- Promoting good soil handling practices.
- Encouraging development on previously developed land.

The issues above identified in the Sustainability Appraisal are aligned with the following Local Plan issues:
Issue 1 – How should we distribute new development?
Issue 17 - How can we protect the natural environment?
Issue 19 - How can we ensure natural resources are used efficiently and pollution and flood risk minimised?

Water

- There are some issues with river water quality in Dacorum
- Over abstraction of water resources is an issue in the region. The Chilterns Chalk Streams are particularly susceptible to over abstraction.

- Some areas of Dacorum are at risk from flooding.
- There are issues relating to the future capacity of waste water treatment works serving the area.
- Considering overall siting of development schemes in order to minimise potential effects on water quality.
- Taking account of groundwater resources and sensitivities (e.g. source protection zones) when allocating sites for development
- Encouraging the use of Sustainable Drainage Systems in new developments.
- Ensuring that efficient use of water resources in development schemes, this includes the use of recycled water and incorporating rainwater re-use.
- Ensuring that new potentially polluting processes are located in areas where groundwater is not vulnerable.

The issues above identified in the Sustainability Appraisal are aligned with the following Local Plan issues:
Issue 17 - How can we protect the natural environment?

Population

- Despite the relatively low levels of deprivation in the Borough as a whole, there are however small pockets of more deprived areas within Dacorum
- Take account of an increasing population
- Take account of an ageing population
- Tackle issues of deprivation in certain areas of the Borough
- Ensure adequate housing, facilities and infrastructure whilst protecting and enhancing the local environment.
- Use planning obligations to help secure an appropriate range of facilities.

The issues above identified in the Sustainability Appraisal are aligned with the following Local Plan issues:
Issue 1 – How should we distribute new development?
Issue 5 - How will people get around?
Issue 10 – What types of homes do we need to plan for?
Issue 21 – What are the area’s physical infrastructure needs?
Issue 22 – What are the area’s social infrastructure needs?
Issue 25 - What levels of housing growth should we consider?
Issue 26 – What principles should be used when choosing growth locations?
Issue 27 - How should future growth be distributed?

Health and Wellbeing

- Need to address health inequalities.
- Demand for healthcare in the Borough is likely to increase as the population increasing, particularly the number of elderly residents.
- Priorities in Dacorum are to reduce levels of obesity and increase levels of physical activity in adults, and to reduce the prevalence of smoking.
- Dacorum’s increasing population will lead to additional pressure on secondary healthcare services in the Borough and also the County as a whole. The increasing proportion of older people in the Borough’s population is also likely to put pressure on secondary healthcare needs, as they are likely to utilise healthcare services more than others.
- Encourage healthy forms of travel and exercise, e.g. walking/cycling and access to leisure and recreational facilities.
- Certain areas within the Borough are deficient of leisure space and this should be addressed in order to encourage a healthier lifestyle amongst residents.
- Encourage the provision of convenience stores that provide fresh produce in accessible locations.
- Designing out crime by improving the urban environment. This may be through redevelopment or adding additional security features such as CCTV and improved lighting.
- Developing community activities and facilities that can divert people away from crime, improve tolerance and prevent anti-social behaviour.

The issues above identified in the Sustainability Appraisal are aligned with the following Local Plan issues:

Issue 1 – How should we distribute new development?
Issue 5 - How will people get around?
Issue 10 – What types of homes do we need to plan for?
Issue 19 - How can we ensure natural resources are used efficiently and pollution and flood risk minimised?
Issue 21 – What are the area’s physical infrastructure needs?
Issue 22 – What are the area’s social infrastructure needs?
Issue 23 – What are the area’s green infrastructure needs?

Housing

- The Borough's population is changing with growing numbers of elderly residents forecast as a result of increased life expectancy. While this will add to the number of one person households and the population in communal homes, there is also evidence of an increase in the number of young children and more sharing. The past long term trend of declining household size has slowed significantly.
- The price of housing compared to earnings is an issue.
- The need for new pitches for Gypsies and Travellers is difficult to estimate accurately, principally because of the nomadic lifestyle of the communities themselves: it is difficult to identify all sources of need and there is a danger of double-counting individual requirements across different local authority areas.
- Meeting needs of Gypsy and Traveller communities even when they no longer choose to travel
- Ensuring the 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.
- Affordable housing provision is a challenge that needs to be addressed to ensure the future prosperity of the area.
- Provision of affordable housing in accessible locations.
- Ensuring appropriate housing provision for the elderly and disabled population, e.g. through independent living housing, Life-long homes and appropriate forms of affordable housing.
- Ensuring that such housing is located near to the necessary services and facilities and public transport.

The issues above identified in the Sustainability Appraisal are aligned with the following Local Plan issues:

Issue 1 – How should we distribute new development?
Issue 8 – How many new homes need to be provided by 2036?
Issue 9 – What land is available for the new homes needed?
Issue 10 – What types of homes do we need to plan for?
Issue 11 – How should the delivery of housing sites be managed?
Issue 25 - What levels of housing growth should we consider?
Issue 27 - How should future growth be distributed?
Issue 28 - What are the growth options?

Transport and Accessibility

- Pressures due to population growth which leads to increasing levels of traffic, which in turn exacerbates congestion, particularly during peak times.
- All the key roads in south-west Hertfordshire are under pressure from heavy levels of traffic, and associated congestion, which has adverse effects on air quality, quality of life and the local economy.
- Bus services are not adequately linked between Hemel Hempstead rail station, Maylands and Hemel Hempstead town centre.
- The walking and cycling network generally meets current demand however there are localised issues, such as congestion on some routes putting people off using those routes. Routes to stations in particular are considered to be inadequate
- Use planning obligations to secure improvements to public transport.
- Providing and maintaining safe and available infrastructure for healthy pursuits – cycleways, dedicated walkways.
- Requiring green travel plans in large new developments.
- Expansion of Luton Airport could put increased pressure on M1, motorway junctions and wider road network
- Provision of infrastructure to enable the increased use of sustainable modes of transport (e.g. cycle

<p>parking facilities, electric vehicle charging points)</p> <ul style="list-style-type: none"> • Make developments permeable to provide improved opportunities for walking and cycling • There may be increased noise pollution as a result of expansions of Luton and Heathrow airports.
<p>The issues above identified in the Sustainability Appraisal are aligned with the following Local Plan issues:</p> <p><i>Issue 1 – How should we distribute new development?</i></p> <p><i>Issue 5 - How will people get around?</i></p> <p><i>Issue 21 – What are the area’s physical infrastructure needs?</i></p>
<p>Economy, employment and education</p>
<ul style="list-style-type: none"> • Maintaining a strong employment base is essential for the future prosperity of the area. • Providing a range of employment sites, including ones that will be attractive to inward investment. • Providing incubator units and units with shared facilities, e.g. reception and meeting facilities etc. Local Plan to identify suitable locations. • Using planning obligations used to enhance existing educational facilities – including allocating land for new schools where required. • Providing a range of employment sites that will be attractive to knowledge based industries • Providing facilities and services to support the improvement of GCSE attainment in schools. • Ensuring that educational opportunities are available to provide the training and skills necessary to support Dacorum’s local economy. • Aiming to reduce levels of out-commuting. • Strengthening the retail offering of the Borough in order to reduce out-flows of retail spending and support the local economy.
<p>The issues above identified in the Sustainability Appraisal are aligned with the following Local Plan issues:</p> <p><i>Issue 1 – How should we distribute new development?</i></p> <p><i>Issue 12 - How should our local economic area be defined?</i></p> <p><i>Issue 13 – How many new jobs are needed in Dacorum by 2036?</i></p> <p><i>Issue 14 – What additional sites should we set aside for office, industrial and warehousing development?</i></p> <p><i>Issue 15 – What additional retail development is required and where should this be?</i></p> <p><i>Issue 16 – What approach should the new Local Plan take to tourism?</i></p> <p><i>Issue 21 – What are the area’s physical infrastructure needs</i></p>

2.4 SA Framework

Informed by the issues identified in the SA/SEA scoping stage, a framework of SA/SEA objectives has been developed covering a range of environmental, social and economic topics. It is similar to that used during the SA/SEA of the Core Strategy and Site Allocations DPD, but with some modifications in order to simplify and to fill some gaps in the previous framework.

The main objectives (shown below) are supported by a series of sub-objectives which provide greater detail on the issues to consider during the assessments. The full SA/SEA Framework is presented in Appendix A.

The **SA/SEA Objectives** against which the options have been assessed are as follows:

- SA1. To protect, maintain and enhance biodiversity and geodiversity at all levels**
- SA2. To protect, maintain and enhance water resources (including water quality and quantity)**
- SA3. To reduce flood risk**
- SA4. Reduce greenhouse gas emissions and adapt to the effects of climate**
- SA5. Achieve good air quality, especially in urban areas**
- SA6. Make efficient use of land and protect soils**
- SA7. To use natural resources, both finite and renewable, as efficiently as possible, and re-use finite resources or recycled alternatives wherever possible**
- SA8. To identify, maintain and enhance the historic environment and cultural assets**
- SA9. To conserve and enhance landscape and townscape character and encourage local distinctiveness**
- SA10. To improve the health and wellbeing of the local population**
- SA11. To develop in sustainable locations**
- SA12. To improve community cohesion through reducing inequalities, promoting social inclusion and reducing crime and the fear of crime**
- SA13. Ensure that everyone has access to good quality housing that meets their needs**
- SA14. Achieve sustainable levels of prosperity and economic growth**
- SA15. To ensure local residents have employment opportunities and access to training**

These SA objectives will be used to structure and inform the assessment of the Local Plan through all stages of its development.

3 Assessment of the Vision and Plan Objectives

3.1 Introduction

A compatibility assessment between the SA objectives and the Local Plan vision and objectives has been undertaken in order to identify whether there are any incompatibilities or tensions between certain objectives. Where potential incompatibilities are identified these will need to be taken into account when undertaking the assessment process and appropriate mitigation measures or alternative approaches considered in the Local Plan.

3.2 Local Plan Vision and Objectives

As part of the new Local Plan process, Dacorum Borough Council has drafted a new Vision and Objectives for the new Local Plan. The Vision forms the critical starting point for the new Local Plan. It encompasses the aims and aspirations for the Borough up to 2036, whilst the strategic objectives set out how the Vision should be achieved.

The suggested revised Vision for local planning in Dacorum Borough to 2036 is as follows:

DACORUM 2036: A VISION – How things could be with an effective new Local Plan in place

Dacorum is recognised as a happy, healthy, prosperous and safe place in which to live, work and enjoy.

The natural beauty of the Chiltern Hills and the varied character of the countryside is admired and cherished. The countryside is actively managed and supports a healthy local economy and diversity of wildlife. Water quality in the rivers is good and towns and villages have sufficient water supply. Local housing needs have been met, with the impact on the countryside minimised through making effective use of previously developed land in the towns and villages.

The growth and regeneration of Hemel Hempstead continues, with further improvements to the town centre, the Apsley and Two Waters area and Maylands Business Park. The town is fulfilling its potential as a sub-regional business centre, with the Enterprise Zone supporting the green technology sector.

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

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

Communities are inclusive and healthy. Minority groups are an accepted part of culture and diversity. New homes are affordable and cater for the needs of the population. Open space, facilities and services are accessible. New schools have opened and access to the Watford Health Campus is improved. Public transport is more widely used and provision for pedestrians and cyclists has improved.

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

The Vision is underpinned by the following objectives under five themes, which will guide the policies in the Plan:

Sustainable Development

- To promote healthy and sustainable communities and a high quality of life.
- To mitigate and adapt to the impacts of climate change.
- To promote social inclusion and cohesiveness, embrace diversity and reduce inequalities.
- To enable convenient access between jobs, homes and facilities, minimise the impact of traffic and reduce the overall need to travel.

- To promote the towns of Hemel Hempstead, Berkhamsted and Tring as the focus for homes, jobs and strategic services.
- To conserve and enhance the function and character of the villages and countryside.
- To ensure the effective use of existing land and previously developed sites.
- To create safe and attractive environments through high quality design.

Strengthening Economic Prosperity

- To promote a vibrant and prosperous economy:
 - to strengthen confidence in Hemel Hempstead’s role as a thriving sub-regional business centre and shopping hub;
 - to develop Maylands Gateway as a hub for Envirotech business;
 - to maintain commercial enterprise and employment opportunities in the market towns and large villages; and
 - to support rural enterprise.

Homes and Community Facilities

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

Looking After the Environment

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

Infrastructure and Delivery

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

3.3 Compatibility Assessment

The Local Plan Vision and Objectives have been assessed for their compatibility with the SA Objectives (see Section 2.4). The findings of the compatibility assessment are provided in the matrix in Table 3-1. The following symbols used in the compatibility assessment are shown below.

Symbol	Compatibility
+	Objectives compatible
0	Objectives not related
-	Objectives incompatible
?	The objective relationship is unknown or is dependent on implementation

Table 3-1: Compatibility between the SA objectives and the Local Plan vision and objectives

New Local Plan Vision & Objectives	SA Objectives (abridged)														
	SA1 Biodiversity and geodiversity	SA2 Water quality/quantity	SA3 Flood risk	SA4 Climate change	SA5 Air quality	SA6 Soils	SA7 Resource efficiency	SA8 Historic environment	SA9 Landscape and townscape	SA10 Health and wellbeing	SA11 Sustainable locations	SA12 Community cohesion	SA13 Housing	SA14 Sustainable prosperity	SA15 Employment and skills
Vision	+	+	?	+	+	+	+	+	+	+	+	+	+	+	+
1. Health / Q of life	0	0	0	0	0	0	0	0	0	+	0	+	0	0	0
2. Climate change	0	0	+	+	0	0	0	0	0	0	0	0	0	0	0
3. Equality	0	0	0	0	0	0	0	0	0	0	0	+	0	0	0
4. Access/travel	0	0	0	+	+	0	0	0	0	0	+	0	0	0	0
5. Promote towns	0	0	0	0	0	0	0	0	0	0	0	+	+	+	+
6. Villages/rural	0	0	0	0	0	0	0	0	+	0	0	+	0	0	0
7. Land use	0	0	0	0	0	+	0	0	0	0	0	0	0	0	0
8. Safety/design	0	0	0	0	0	0	0	0	+	0	0	+	0	0	0
9. Vibrant economy	?	?	?	?	?	?	?	?	?	0	0	+	0	+	+
10. Homes	?	-	?	?	?	-	?	?	?	+	0	+	+	0	0
11. Facilities	0	0	0	0	0	0	0	0	0	+	0	+	0	0	0
12. Nat & Hist Env't	+	+	0	0	0	+	0	+	+	0	0	0	0	0	0
13. Resources	0	0	0	+	0	0	+	0	0	0	0	0	0	0	0
14. Flood risk	0	+	+	0	0	0	0	0	0	0	0	0	0	0	0
15. Pollution	+	+	0	0	0	0	0	0	0	+	0	0	0	0	0
16. Infra. provision	0	+	0	0	0	0	+	?	?	+	0	+	0	+	0
17. Infra. delivery	0	+	0	0	0	0	+	?	?	+	0	+	0	+	0

The proposed Vision for the Borough sets a general aspiration for how development will meet the needs of the population whilst at the same time protecting the environment and character of the Borough. This Vision has therefore been identified as being compatible with the social and economic SA objectives and with the majority of the environmental SA objectives. However there is uncertainty against the SA objective for flood risk as the Vision does not make any reference to adapting to the effects of climate change.

The compatibility matrix indicates that generally, the Local Plan objectives are either compatible or have no relationship with the SA/SEA objectives. However the assessment indicates that there are

some potential conflicts and some uncertainties over the compatibility between the SA/SEA and Local Plan objectives.

Incompatibilities have been identified between the Local Plan objective for 'Homes' and the SA objectives for 'water' and 'soils', as new housing will inevitably result in increased demand for water resources and the loss of some soils, through soil sealing by new development. For the same Local Plan objective uncertainty has been identified for the other environmental SA objectives as the effects against those objectives will be dependent on the location and design of the developments and supporting infrastructure. For that same reason uncertainty has been identified between the Local Plan objective for 'Vibrant economy' and all the SA environmental objectives.

Uncertainty has also been identified between the Local Plan objectives for 'Infrastructure Provision and 'Infrastructure Delivery' and the SA objectives covering 'Historic environment' and 'Landscape and townscape', due to the potential for adverse effects that could result (e.g. from renewable energy infrastructure).

It should be recognised that whilst some incompatibilities and uncertainties have been identified for specific objectives the Local Plan will includes a series of policies aimed at protecting and enhancing the environment and public realm and helping towards achievement of associated Local Plan objectives. These policies will help towards mitigating the potential negative effects associated with new development that are identified in the sustainability appraisal.

The policies proposed for inclusion in the Local Plan cover the following topics areas:

- General;
- Sustainable Development;
- Homes / Facilities;
- Economic Prosperity;
- Looking after Environment;
- Infrastructure;
- Place Strategies

The list of proposed policies is included in Appendix a) of the Issues and Options Paper. This list has been checked as part of the SA/SEA review of the Issues and Options Paper. The SA/SEA found that individual policies under the seven topics provide coverage of all the potential effects that are likely to be identified during the ongoing assessment of the Local Plan.

4 Assessment of the Options

4.1 Introduction

The consideration and appraisal of alternative options is an integral part of the plan making and SA processes. During the development of the Local Plan a range of both strategic and more detailed options will be considered and assessed through the sustainability appraisal process in order to arrive at the Council's preferred approach.

The Environmental Assessment of Plans and Programmes Regulations 2004² require that the SEA shall:

"... identify, describe and evaluate the likely significant effects on the environment of -

(a) implementing the plan or programme; and

(b) reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme." Article 11 (2).

and that the Environmental Report (the Publication SA Report in the case of the new Dacorum Local Plan) should include:

"8. An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information." Schedule 2.

The SA Working Notes and SA Reports that will be prepared during the development of the Local Plan will therefore provide the findings of the assessments of options that are undertaken during the various stages of the development of the Local Plan and where appropriate provide the reasons for selecting the options taken forward to the next stage of the planning process and the reasons for not taking forward others.

It should be noted that the role of the SA/SEA in this process is to provide assessments of the alternatives being considered, not to make the decision as to which alternatives are taken forward or which alternatives should be considered to be 'reasonable alternatives'. This is made clear in Government guidance on SEA³:

"It is not the purpose of the SEA to decide the alternative to be chosen for the plan or programme. This is the role of the decision-makers who have to make choices on the plan or programme to be adopted. The SEA simply provides information on the relative environmental performance of alternatives, and can make the decision-making process more transparent". (Paragraph 5.B.7)

The guidance provides further details on how to consider alternatives as summarised in the following extracts:

Identifying alternatives

"Only reasonable, realistic and relevant alternatives need to be put forward. It is helpful if they are sufficiently distinct to enable meaningful comparisons to be made of the environmental implications of each".

² Statutory Instrument 2004 No. 1633

³ A Practical Guide to the Strategic Environmental Assessment Directive. ODPM, 2005

Assessing alternatives

“The assessment of alternatives may be made in broad terms against the SEA objectives, provided there is sufficient detail to identify the significant environmental effects of each alternative. Where appropriate any cumulative, secondary and synergistic, short, medium, and long-term effects need to be highlighted, indicating whether they are likely to be permanent or temporary”.

As described in Section 1.2, as part of the consultation on Issues and Options the Council are considering options relating to how future growth in the Borough could be accommodated. The assessments of the options (reasonable alternatives) against each of the SA objectives are detailed in Appendix B, with summaries of those assessments being provided in Section 4.3 below.

In addition to the options assessed in the SA/SEA the Council have ruled out some other potential options as they are not considered to be ‘reasonable alternatives’. Details of these rejected options which cover the level of growth to be included in the Local Plan and the distribution of that growth are provided in Appendices b) and c) respectively of the Council’s Issues and Options document. Given that it is the role of the SA to document the consideration of alternatives, as described above, the tables from these appendices are repeated in Section 4.4 of this SA Working Note.

Where appropriate, within the discussion on individual Issues in the Issues and Options Paper the Council have picked up any ‘reasonable alternatives’ in terms of the approach to be taken in the Local Plan process to address the issues identified (e.g. the proposed approach to meeting future jobs growth). The questions throughout the Issues and Options Paper have been worded to enable respondents to put forward what they consider to be additional reasonable alternatives for consideration. Following the consultation the Council will consider any such suggestions and where they consider them to be ‘reasonable alternatives’ they will be subject to SA/SEA as the Plan is further developed.

4.2 Methodology

For the Local Plan options an assessment has been undertaken, with each ‘Option versus SA objective’ relationship being ‘scored’ using the significance criteria shown in Figure 4-1. The assessment scoring is supported by an assessment commentary to provide the rationale behind the score allocated.

Significance Assessment	Description
✓✓	The option is likely to have a significant positive effect
✓	The option is likely to have a positive effect which is not significant
?	Uncertain – It is uncertain how or if the option impacts on the SA/SEA objective
–	Neutral – The option is unlikely to impact on the SA/SEA objective
✗	The option is likely to have a negative effect which is not significant
✗✗	The option is likely to have a significant negative effect
✓/✗	The option is likely to have some positive and some negative effects, none of which are significant

Figure 4-1: Significance criteria

4.2.1 Assessment Uncertainty

At this early stage of the SA process the assessments in this SA Working Note have been undertaken at a relatively high level in order to reflect the limited level of spatial detail provided in relation to

each of the growth options. As a result there is some uncertainty relating to the nature and scale of the potential effects of the growth options against many of the SA objectives.

A greater level of certainty will be possible in subsequent assessments as the Local Plan is developed further and more detail is provided in relation to the strategies, policies and the specific locations of sites for delivering the housing and employment growth. That greater detail will enable a more accurate assessment to be undertaken.

The SA of the Publication Local Plan will use a more detailed assessment methodology which also considers the geographical scope of effects (local, regional or national), temporal scope (short, medium or long term), permanence (temporary or permanent). The assessment will also consider cumulative/synergistic effects, cross-boundary effects and interrelationships between the SA objectives.

The cumulative effects that will be considered will not be restricted to those effects resulting from just within the Local Plan, for example considering how the proposed sites for development in Dacorum may together impact on a certain resource, but will also consider the potential effects that would result from Dacorum’s Local Plan and the Local Plan’s and other relevant plans produced in neighbouring areas. For example it would consider how growth in Dacorum, when combined with growth elsewhere, could affect the Chilterns AONB or the availability of water resources in the region.

4.3 Growth Options

Each of the options considered in the Issues and Options Paper has been assessed against the SA objectives using the methodology described above. The full assessment is included in Appendix B1 and is summarised below.

Table 2: Summary of Assessment of Growth Options

Option	SA Objectives														
	SA1 Biodiversity	SA2 Water	SA3 Flood risk	SA4 Climate change	SA5 Air quality	SA6 Soils	SA7 Resource efficiency	SA8 Historic environment	SA9 Landscape	SA10 Health and wellbeing	SA11 Sustainable locations	SA12 Community cohesion	SA13 Housing	SA14 Economy	SA15 Employment
Option 1a	x/?	x/?	-	x/?	x	x	x	?	x/?	√/x	√/?	√/x	√/x	√	?
Option 1b	x/?	x/?	-	x/?	x	x	x	?	x/?	√/x	√/?	√/x	√/x	√	?
Option 1c	x/?	x/?	-	x	x	x	x	?	x/?	√/x	x	√/x	√/x	√	?
Option 2a	x/?	x/?	-	x/?	x	x	x	?	x	√/x	√/?	√/?	√/√√	√	√
Option 2b	x/?	x/?	-	x/?	x	x	x	?	x	√/x	√/?	√/?	√/√√	√	√
Option 2c	x/?	x/?	-	x/?	x	x	x	?	x	√/x	√/?	√/?	√/√√	√	√
Option 3	x/?	x/?	-	x/?	x	xx	x	?	xx	√/x	√/?	√/?	√√	√	√

All the options require the delivery of the c.10,940 homes on existing and planned sites within settlement boundaries that are consistent with existing planning policies (the Urban Capacity sites).

In terms of the SA/SEA this means that there are a range of effects against each SA/SEA objective that are consistent across all options, which means that the 'scoring' used has not always been able to pick up the differences in effects between some options. At the option level there are also some effects that are consistent across all the sub-options (i.e. Option 1a, 1b and 1c under the main Option 1), which again has meant that differentiating the effects between the sub-options has not always been possible.

Undertaking the high level assessments on the multi-dimensional options also means that there is a large amount of uncertainty relating to the prediction of the likely effects against the SA/SEA objectives and this is reflected in the assessment findings.

Notwithstanding the above the assessments have identified the main differences in effects between the options to provide information to inform the development of the Local Plan.

The lower of the three levels of growth that is proposed under Option 1 would result in less adverse effects on the environment, that are inevitably associated with new development, when compared with the higher levels of growth under Options 2 and 3. This would particularly be the case for any development that takes place on greenfield sites, including that in areas currently in the Green Belt. Examples of the potential adverse effects include amongst others those relating to habitat loss, increased water consumption, impacts on local landscapes, soil sealing, natural resource use, increased waste, and increased emissions of both greenhouse gases and airborne pollutants.

Option 3, which proposes the highest level of growth, would result in the greatest level of such adverse effects due to the larger amount of land that would be required to deliver the development and the greater level of 'human activity' that would result. Given this high level of development, the SA/SEA has identified potential significant adverse effects in relation to: the 'soils' objective, due to the high level of soil sealing and potential for soil damage that would result from delivering the growth; and the 'landscape' objective, due to the high level of additional development that would be required in the countryside on the edge of settlements and the potential impact on the setting of the Chilterns AONB as it would require significant development at Tring, Berkhamsted and to the north of Hemel Hempstead, all of which are either adjacent or in close proximity to the AONB .

The levels under Option 2 would have levels of effects on the environment greater than Option 1, but lower than Option 3.

It should be noted that the effects will be very dependent on the location and characteristics of the sites selected to deliver the housing growth, as well as the controls provided by the other policies in the Local Plan, in particular the development management policies. Potential sites will be assessed during a later stage of the SA process at which point the current high levels of uncertainty will be reduced.

New development, which in some cases would be through redevelopment of current sites within the settlements and in others developing outside current settlement boundaries, need not however always result in adverse effects on the environment. For example new large greenfield developments could provide opportunities for biodiversity enhancements and make use of district heating systems, whilst redeveloped sites within settlements could result in improvements to local townscapes and improvements to the energy efficiency of the building stock. Such effects will be site dependent and the Policies proposed for the new Local Plan should help to maximise any such opportunities where they exist.

In terms of the social and economic SA objectives, in general terms the higher level of growth (Option 3) performs the best as it would result in housing levels that would provide a number and range of homes to meet future needs of the Borough, particularly in relation to affordable housing.

As a result significant positive effects have been identified for Option 3 in relation to the 'housing' SA objective as the provision of 1,000-1,100 dwellings per annum (dpa) would exceed the objectively assessed need of the Borough (from the SHMA) and would provide additional affordable housing. There may also be a significant positive effect against this objective from Option 2 (756 dpa), but that may depend on the outcome of the process to update the Objectively Assessed Need that will take place before the Local Plan is published. If the OAN is increased then Option 2 would no longer fully meet the need.

Any increased population would help to support the local economy but the new large developments under Options 2 and 3 would provide new facilities and infrastructure for use by the Borough as a whole. The lowest level of housing growth in Option 1 would not be able to deliver this level of benefits. The assessments did however identify that the high levels of growth under Option 3 could put strain on existing services and infrastructure, to the detriment of all residents, both existing and new. As for the environmental objectives, the assessments for Option 1 identified 'less-extreme' effects compared to the other options.

Whilst the higher levels of growth have been found to perform better against the social and economic objectives, there could be issues if the growth puts pressure on the Borough's existing services (for example, schools and healthcare) and infrastructure and in so doing adversely affects the current residents. In order to avoid such issues new development in the Borough will need to be accompanied by new or expanded services and infrastructure.

For Option 1 and Option 2, three different growth distributions were considered as sub-options. Options 1a and 2a had a proposed distribution based on the three main towns in the Borough; Options 1b and 2b had a Hemel Hempstead focus; and Options 1c and 2c had a distribution spread more evenly across the Borough. However, the sub-options did not relate to the distribution of all the housing growth for the particular option, but just for the additional sites in the Green Belt needed on top of the new homes inside the settlement boundaries (the Urban Capacity Sites).

Given the strategic nature of the assessment it was therefore difficult for the SA/SEA to differentiate the scoring provided between the sub-options under a particular main option. The assessment did however pick up some differences between the sub-options, although this was often not possible to reflect in the scoring. These are presented against the SA/SEA objectives below.

SA1 Biodiversity: the differentiation between the sub-options related to whether the scale of development in the Green Belt at the different settlements would be such that it could provide opportunities for the provision of Suitable Alternative Natural Greenspace (SANGs) which would help to reduce recreational pressure on the Chilterns Beechwoods Special Area of Conservation at the Ashridge Estate. Option 1c does not require any Green Belt release at Hemel Hempstead and so differed from the other options which were all considered to be able to provide SANGS at at least one location.

SA4 Climate change: Option 1c performed the worst of all the options, when taking the level of growth under the option into consideration. This is because Option 1c does not include any new Green Belt development at Hemel Hempstead and by distributing it in other locations across the Borough would increase the overall need to travel to access main services in Hemel Hempstead when compared to Options 1a and 1b which is likely to result in increased greenhouse gas emissions. With the higher level of growth under Options 2 and 3 there are no sub-options that have the equivalent situation to Option 1c. Option 2c and Option 3 plan for a limited amount of Green Belt development in the rural area which would increase the need to travel, but not to the same extent as that required under Option 1c, when considered in proportionate terms based on the housing levels under each option.

SA9 Landscape: the differentiation between the sub-options related to whether the scale of development in the Green Belt at the different settlements would be such that it could have impacts on the setting of the Chilterns AONB. Berkhamsted, Hemel Hempstead, Markyate and Tring are all in close proximity to the AONB and the level of potential effects on the AONB would be dependent on the amount of new development on the edge of these settlements, along with the relationship of any new sites to the AONB.

SA11: Sustainable locations: as for SA4, the main differentiation between options related to Option 1c not including any new Green Belt development at Hemel Hempstead, unlike the other six sub-options. Hemel Hempstead as the Borough's main town has the most services and facilities and by not considering expansion of the town means that there would be an increased need to travel from the other settlements that do receive new development on Green Belt sites.

SA12: Community cohesion: for this SA/SEA objective the differentiation between the sub-options related to how new development could provide opportunities for new services and infrastructure that would benefit all the residents in a particular settlement and help to take pressure off existing local infrastructure. However the assessment also identified that whilst there were no opportunities to improve infrastructure provision in those settlements that were not receiving large new development, there would also not be the additional pressure on existing infrastructure in these settlements – for example in Tring and Berkhamsted under Option 1c. On a general point in relation to this SA objective, the assessments did not identify any discrimination on the basis of disability, gender or ethnic minority from any of the options considered.

SA13: Housing: the differentiation between the sub-options related to whether the scale of development in the Green Belt at the different settlements would help meet the housing needs of the individual settlements. In particular Option 1b does not include any Green Belt release at Hemel Hempstead, which may cause issues in terms of not meeting local housing needs in the Borough's largest town.

SA14: Sustainable prosperity: for this SA/SEA objective the differentiation between the sub-options related to how new development in the Green Belt could help to maintain the viability of local services and businesses in the different settlements. Those settlements receiving the additional development under the different options would be more likely to see such benefits compared to the settlements receiving no new additional development beyond that in the 'urban capacity' sites.

SA15: Employment and skills: for this SA/SEA objective the differentiation between the sub-options related to how the distribution of new development in the Green Belt related to the potential future employment locations. The Issues and Options Paper proposes to remove land from the Green Belt at south west Kings Langley, east of the A41 at Two Waters, and Dunsley Farm in Tring in order to meet the future need for additional employment land. In addition there is likely to be the provision of additional employment land at East Hemel Hempstead, within St Albans District, which will provide new job opportunities. Those options that provided additional housing in close proximity to the future employment sites were identified in the assessment of the sub-options.

No sub-option specific effects were identified for the following SA Objectives: SA2 Water; SA3 Flood risk; SA5 Air quality; SA6 Soils; SA7 Resource efficiency; SA8 Historic environment; and SA10 Health and wellbeing.

4.4 Rejected Options

As described in Section 4.1, in addition to the options that are included in Section 10 of the Issues and Options Paper, which have been subject to assessment as part of the SA/SEA process (Section

4.3 and Appendix B1), there are other potential options which could be considered by the Council, but which the Council have ruled out from being ‘reasonable alternatives’.

The SA/SEA is only required to provide assessments of reasonable alternatives – and it is for the Council to determine whether an alternative is reasonable or not and to provide reasons for that decision. The information in Sections 4.4.1 and 4.4.2 are reproduced from Appendices b) and c) of the Issues and Options Paper and provide the reasons why the other alternatives have been rejected at this stage of the Local Plan process.

4.4.1 *Reasons for rejecting alternative growth levels*

The Issues and Options Paper identifies three potential options for the level of housing growth in the Borough and these have been assessed by the SA/SEA process. A further three alternative levels of growth were identified but these were considered by the Council to not be ‘reasonable alternatives’. Table 3 provides the reasons behind these decisions.

As part of the SA/SEA process, TRL have reviewed the reasons provided and agree with the Council that the options are not ‘reasonable alternatives’ that should be considered further in the SA/SEA and plan making processes.

Table 3: Reasons for rejecting alternative growth levels (Source: DBC Issues and Options Paper)

OPTION	WHY REJECTED
Continuing the current housing target (430 homes / year)	This option has been discounted as it equates to a lower level of housing provision than technical studies show can be accommodated over the plan period. It therefore does not reflect the level of development that is actually expected to come forward in the area. It also falls significantly short of the assessed local housing need for the area and the two figures derived from the Government consultation on <i>'Planning for the right homes in the right places'</i> .
Urban Capacity option	This option would equate to a level of development of about 476 dwellings / year or 10,940 dwellings over the plan period i.e. the calculated urban capacity of the Borough. It would not require any further land to be released from the Green Belt, but equates to a level of growth that falls significantly short of the assessed local housing need for the area from the SHMA and the two figures derived from the Government consultation on <i>'Planning for the right homes in the right places'</i> . Provided all other site and density options have been considered, the Council considers that housing need provides the exceptional circumstances required to consider the release of some Green Belt land. This is supported by the fact that the Green Belt studies carried out for the Council show that some land currently designated as Green Belt does not meet the Government's tests for continuing to have this designation.
Above upper Government figure	An option of a level of housing growth above the upper Government figure (calculated using the draft standard methodology in the consultation document <i>'Planning for the right homes in the right places'</i> has been discounted for two main reasons: <ul style="list-style-type: none"> (a) <i>Development constraints</i> – Development options within Dacorum are constrained by a number of designations (Green Belt, Chilterns Area of Outstanding Natural Beauty, Special Area of Conservation etc.) that would be materially affected should development considerably above c.1,100 homes/year have to be accommodated. (b) <i>Need</i> - None of the other Councils that make up Dacorum's identified Housing Market Area (HMA) have indicated that they require Dacorum to accommodate any significant level of unmet needs for their areas. However, Welwyn Hatfield Council in an adjoining HMA has recently asked Dacorum to consider taking some of its unmet need.

4.4.2 *Reasons for rejecting alternative growth distributions*

The Issues and Options Paper identifies three potential options for distributing growth in the Borough and these have been assessed by the SA/SEA process. A further five alternative ways of distributing the growth were identified but these were considered by the Council to not be 'reasonable alternatives'. Table 4 provides the reasons behind these decisions.

As part of the SA/SEA process, TRL have reviewed the reasons provided and agree with the Council that the options are not 'reasonable alternatives' that should be considered further in the SA/SEA and plan making processes.

Table 4: Reasons for rejecting alternative growth distributions (Source: DBC I&O Paper)

WHY REJECTED	
New settlement: a new town or village	<p>Paragraph 52 of the NPPF states that the <i>"The supply of new homes can sometimes be best achieved through planning for larger scale development, such as new settlements or extensions to existing villages and towns that follow the principles of Garden Cities. Working with the support of their communities, local planning authorities should consider whether such opportunities provide the best way of achieving sustainable development"</i>.</p> <p>The Council has therefore carefully considered the development of a large new settlement. A new settlement has the potential to secure a very high standard of design, access and sustainability and, subject to size, to comprehensively plan for new infrastructure. It can help relieve development pressures on other settlements.</p> <p>However, there are limited opportunities for standalone new settlements as much of Dacorum is affected by sensitive landscapes (e.g. the Chilterns Area of Outstanding Natural Beauty). Those areas that lie outside the AONB suffer from poor communication links e.g. north of Tring. Furthermore, realistic large-scale brownfield opportunities (such as former MOD land) are lacking.</p> <p>In order for a new settlement to successfully function as a place, it would need to be large enough to be self-supporting in terms of services and facilities. For example it would need to have its own completely new transport links, roads, shops, schools, healthcare etc. This means that to support such a level of infrastructure to achieve sustainability, a new settlement needs to realistically contain over 5,000 new homes and is likely in the longer term to contain 10,000 new homes. For comparison, South Woodham Ferrers in Essex, which was built substantially as a new settlement, has around 6,500 homes in its current form and took 20 years to complete.</p> <p>For all new locations the deliverability of sites needs to be considered. This is particularly important for very large proposals as sites can only be built-out at a certain rate. Sites in excess of 3,000 new homes would be difficult to deliver in the Plan period. The Council is required to ensure that it maintains a five-year rolling supply of housing measured against the housing requirement. New large settlements have very long lead-in times and require substantial infrastructure which could significantly impact on this.</p> <p>At present, through the SHLAA and subsequent 'call for sites' process, no suggestions have been put forward for potential sites. A new settlement has therefore been discounted for the following reasons:</p> <ul style="list-style-type: none"> • We do not consider that there are any suitable sites in sustainable locations. • A new settlement could also not deliver the large number of homes required within the timescales required (i.e. by 2036). <p>The option of a new settlement needs to be looked at on a larger scale ideally across the county, but at least on a south west Hertfordshire scale. This work is due to be commissioned shortly and will be used to inform the next Local Plan review.</p>
Rural growth	<p>Focusing growth in rural parts of the Borough would not comply with Government planning guidance, or comply with the suggested Locational Principles. It would result in development being directed to the least sustainable parts of the Borough – many of which are protected by environmental and landscape designations. It would also fail to make use of some development locations on the edge of the three larger settlements, many of which are assessed in the initial assessment process to be suitable potential sites.</p>

Export growth to another Council area	<p>Government guidance sets out a clear expectation that every Council area will try to meet its growth needs within its own boundaries, or seek agreement with neighbouring authorities to ensure they are met across the wider housing market area (HMA). Whilst Dacorum is constrained by the Green Belt, landscape and environmental designations, so are the other authorities within the HMA (and beyond). The only realistic option that could be considered is for some of the homes that will comprise the Gorhambury development at East Hemel Hempstead, in St Albans district, to count towards Dacorum's needs. This option is opposed by St Albans Council, and if successful, would still require the allocation of further sites within Dacorum. It is possible that some of Dacorum's future jobs needs could however be met through the Gorhambury development, and this has been agreed in principle between the two Councils. Discussions about housing growth are ongoing with the other Councils in South West Hertfordshire and our approach is being agreed through a Memorandum of Understanding.</p>
Use greenfield before brownfield land	<p>This approach would not comply with Government planning guidance, or with the suggested Locational Principles. It would fail to support urban regeneration and result in development being directed to the least sustainable parts of the Borough – many of which are protected by environmental and landscape designations. Given the high level of local housing need, a combination of greenfield and brownfield sites is likely to be required to meet targets and maintain supply.</p>
Significant expansion of a large village(s)	<p>Focusing growth on one or more of the large villages would not comply with Government planning guidance, or comply with the suggested Locational Principles. It would result in development being directed to less sustainable parts of the Borough – many of which do not have easy access to key services and facilities that can be found at larger settlements. This would also lead to substantial changes to the compact and rural character of these villages.</p>

5 Conclusions and Next Steps

5.1 Conclusions and Recommendations

5.1.1 *Local Plan Issues Coverage*

An analysis has been undertaken to consider whether the issues identified for the Local Plan provide recognition/coverage of the issues identified by the SA/SEA – insofar as much the Local Plan can help to address those issues. This analysis found that all the SA/SEA objectives are picked up by at least one of the issues identified for the Local Plan in the Issues and Options Paper.

In addition, the policies proposed for inclusion in the Local Plan, which cover seven topics areas, have been checked as part of the SA/SEA review of the Issues and Options Paper. The SA/SEA found that individual policies under the seven topics provide coverage of all the potential effects that are likely to be identified during the ongoing assessment of the Local Plan.

5.1.2 *Assessment of Local Plan Vision and Objectives*

The proposed Local Plan Vision and Objectives have been assessed for their compatibility with the SA/SEA objectives in order to identify whether there are any incompatibilities or tensions between certain Plan and SA/SEA objectives. The compatibility assessment found that generally the Local Plan objectives are either compatible or have no relationship with the SA/SEA objectives. However the assessment also indicated that there are some potential conflicts and some uncertainties over the compatibility between the SA/SEA and Local Plan objectives. The incompatibilities that were identified were between the Local Plan objective for ‘homes’ and the SA objectives for ‘water’ and ‘soils’, as new housing will inevitably result in increased demand for water resources and the loss of some soils, through soil sealing by new development.

5.1.3 *Assessment of Local Plan Growth Options*

The options that have been included in the Dacorum Issues & Options Consultation have been assessed against the SA Objectives that were developed during the scoping stage of the SA process. Undertaking the high level assessments on the multi-dimensional options means that there is large amount of uncertainty relating to the prediction of the likely effects against the SA/SEA objectives and this is reflected in the assessment findings. Nevertheless some conclusions can be drawn from the assessments which will assist the Council in selecting the approach to be taken forward into the next stage of the Local Plan.

In general terms the option for the lowest level of housing growth (Option 1) performs best against the environmental SA/SEA objectives as it would require less house-building on greenfield sites and less water consumption, fewer additional cars on the roads etc., that would result from an increased local population. The highest level of growth (Option 3) performs the worst against the environmental objectives for the opposite reasons. The assessment did however identify some benefits of the higher level of growth against the environmental objectives as the larger developments that would be required to deliver the growth could provide opportunities for environmental enhancements. The assessments for Option 2, which has growth between Options 1 and 3, identified less-extreme effects compared to the other options both in terms of the positive and the negative effects.

In terms of the social and economic SA objectives, in general terms the higher level of growth (Option 3) performs the best as it would result in housing levels that would provide a number and

range of homes to meet future needs of the Borough, particularly in relation to affordable housing. The increased population would also help to support the local economy and the new large developments would provide new facilities and infrastructure for use by the Borough as a whole. The lowest level of housing growth in Option 1 would not be able to deliver this level of benefits. The assessments did however identify that the high levels of growth under Option 3 could put strain on existing services and infrastructure, to the detriment of all residents, both existing and new. As for the environmental objectives, the assessments for Option 2 identified less-extreme effects compared to the other options.

For Option 1 and Option 2, three different growth distributions were considered as sub-options. Options 1a and 2a had a proposed distribution based on the three main towns in the Borough; Options 1b and 2b had a Hemel Hempstead focus; and Options 1c and 2c had a distribution spread more evenly across the Borough. However, the sub-options did not relate to the distribution of all the housing growth for the particular option, but just for the additional sites in the Green Belt needed on top of the new homes inside the settlement boundaries (the Urban Capacity Sites).

Given the strategic nature of the assessment it was therefore difficult for the SA/SEA to differentiate the scoring provided between the sub-options under a particular main option. The assessment commentary did however pick up some differences between the sub-options in relation to some of the SA/SEA objectives. These differences related to how the distribution of the additional development in the Green Belt over and above the 'urban capacity sites' would affect the achievement of the SA/SEA objectives for biodiversity, landscape, community cohesion, housing, sustainable prosperity and employment and skills. These differences related to how the distribution of the additional development in the Green Belt over and above the 'urban capacity sites' would affect the provision of Suitable Alternative Natural Greenspace (SANGs) which would help to reduce recreational pressure on the Chilterns Beechwoods Special Area of Conservation at the Ashridge Estate; the impacts on the setting of the Chilterns AONB; the new opportunities, but also pressures, on the infrastructure of the settlements receiving large new developments; meeting the housing needs in the different settlements; maintaining the viability of local services and businesses in the different settlements; and finally how the new development would relate to the future new job provision in the Borough.

5.1.4 Rejected options

In developing the options to be consulted on for the level of growth and the distribution of that growth, the Council have also identified some other options which are not considered to be 'reasonable alternatives' for further consideration. As part of the SA/SEA process, TRL have reviewed the reasons provided by the Council for making these decisions and agree with the Council that the options are not 'reasonable alternatives' that should be considered further in the SA/SEA and plan making processes.

5.2 Next Steps

Following consultation on the Issues and Options Paper and this accompanying SA Working Note, the SA/SEA will provide input during the development of the next stage of the Local Plan, which is planned for consultation in 2018. That consultation will be accompanied by an SA Report (with a Non-Technical Summary) which will provide a detailed assessment of all the proposed policies and sites in the Publication document and which will fully meet the requirements for an Environmental Report as specified by the SEA Regulations.

The next stage of the Local Plan will build on feedback received through this current consultation as well as the additional evidence base studies that are currently being undertaken.

5.2.1 *How to respond to the consultation*

This SA Working Note will be published for consultation alongside the Local Plan Issues and Options document. Copies of the SA document can be found at the following link, at local libraries or at Borough Council Offices subject to opening times:

<https://dacorum-consult.objective.co.uk/portal/planning/lp/io/io>

Comments on the SA Working Note should be sent by midnight 13th December 2017 either on-line via the consultation portal at the weblink above, or in writing:

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

By post: Strategic Planning Team
Strategic Planning and Regeneration
Dacorum Borough Council
The Forum,
Marlowes,
Hemel Hempstead HP1 1DN

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

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Appendix A: SA Framework

This SA framework was originally published for consultation the SA/SEA Scoping Report which was subject to consultation from 23rd March to 5th May 2017. Following that consultation the framework has been updated to take on-board comments received. The updated Scoping Report Update (October 2017) provides a summary of the consultation responses received along with an explanation of how each comment has been taken into account. The Scoping Report Update is available on the Council’s website at the following link:

<http://www.dacorum.gov.uk/home/planning-development/planning-strategic-planning/new-single-local-plan/technical-work-for-the-early-partial-review>

Objective	Sub-objectives / Appraisal Criteria	Site specific questions
Biodiversity, including flora and fauna, and geodiversity		
1. To protect, maintain and enhance biodiversity and geodiversity at all levels [Biodiversity & geodiversity]	To protect, maintain and enhance designated wildlife and geological sites (international, national and local) and protected species to achieve favourable condition	Would development of the site: <ul style="list-style-type: none"> provide opportunities for enhancement of biodiversity or biodiversity gain? avoid fragmentation & improve connectivity, for example through the provision of wildlife corridors and buffer areas? contribute to a wider green infrastructure strategy, for example through the provision of green walls and roofs? protect woodlands, hedgerows, trees and watercourses? Is it likely that there are any protected species or habitats on or near the site? Would development of the site affect designated sites? Would development of the site impact on a recognised site of geological / geomorphological importance?
	To help achieve targets set by the Biodiversity Action Plan (BAP)	
	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)	
	To manage woodlands and other habitats of value for biodiversity in a sustainable manner and protect them against conversion to other uses	
	To conserve and enhance the green infrastructure and blue infrastructure within the Borough.	
	To recognise the social/environmental value and increase access to woodlands, wildlife & geological sites and green spaces particularly near/in urban areas, including encouraging people to come into contact with, understand, and enjoy nature	
	To consider the effects of light pollution on night flying fauna	
	To recognise the potential biodiversity value of brownfield land and identify appropriate mitigation measures	
To actively seek to promote ecological connectivity between existing greenspaces		
Water		
2. To protect, maintain and enhance water resources (including water quality and	To encourage higher water efficiency and conservation in new and existing developments; promoting local water recycling initiatives and rain water harvesting	Would development of the site: <ul style="list-style-type: none"> lead to positive effects on water quality be of a sufficient size to act as an exemplar
	To ensure water consumption does not exceed levels which can be supported by natural processes	

quantity) [Water quality/quantity]	and storage systems To improve ecological status and flow of rivers and encourage practices which reduce nitrate levels in groundwater To reduce the number and severity of pollution incidents and reduce the risks to groundwater resource from contamination To take account of the existing and future capacity of sewerage network	for sustainable water management? <ul style="list-style-type: none"> operate within the existing and planned future capacities for water supply and wastewater treatment? enable resolution of existing wastewater infrastructure problems?
3. To reduce flood risk [Flood risk]	To avoid developments in areas which at risk from fluvial, sewer, groundwater flooding (for instance natural flood plains) or storm surges while taking into account the impacts of climate change To ensure that developments which are at risk from flooding, or are likely to be at risk in future due to climate change, are sufficiently adapted To take account of additional surface water generated by new development To promote properly designed and maintained sustainable drainage systems (SUDs) to reduce flood risk, surface water run off and contribute to improved water quality, green and blue infrastructure and function. To seek opportunities for Natural Flood Management where appropriate	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) Would development of the site: <ul style="list-style-type: none"> reduce the risk of flooding to people and property? resolve an existing drainage problem? involve an increase impermeable surfaces? be at risk from flooding arising from climate change?
Climatic Factors		
4. Reduce greenhouse gas emissions and adapt to the effects of climate [Climate change]	To minimise greenhouse gas emissions (particularly CO ₂) for instance through more energy efficient design and promoting carbon neutral development To enable the use of sustainable modes of transport To promote increased carbon sequestration e.g. through increases in vegetation cover To encourage technological development to provide clean and efficient use of resources 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) To promote the incorporation of renewable energy technology into all new developments To encourage positive attitudes towards renewable energy schemes (e.g. biomass and wind energy) To promote design measures which enable developments to withstand and accommodate the likely impacts and results of climate change (for instance through robust and weather resistant building structures)	Is the site of sufficient size to act as an exemplar of sustainable development? Does the site location encourage sustainable modes of travel? Is the site located within reasonable walking distance of public transport? Is the site of sufficient size to provide on or off-site CHP? Is the site located such that it could be linked to an existing CHP facility? <ul style="list-style-type: none"> Will it develop significant renewable energy resources? 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?

		<ul style="list-style-type: none"> be able to minimise use of energy through design and occupation? <p>Is the site suitable for promoting the use of a travel plan?</p>
Air Quality		
5. Achieve good air quality, especially in urban areas [Air quality]	To reduce transport related air quality problems	<p>Would development of the site affect an AQMA or lead to its designation?</p> <p>Would development of the site be likely to improve air quality within an area of poor air quality?</p> <p>Will the proposed use increase air pollution (from traffic or industrial processes)?</p>
	To ensure that development proposals do not make existing air quality problems worse and where possible improve the quality	
	To avoid siting sensitive developments in areas with poor air quality	
	To address existing or potential air quality problems	
Soil and Material Assets		
6. Make efficient use of land and protect soils [Soils]	To safeguard high quality soils, such as agricultural land grades 1, 2 and 3a, from development	<p>Would development of the site involve the loss of best and most versatile agricultural land?</p> <p>Is the site on previously developed land?</p> <p>Is the site capable of supporting higher density development and/or a mix of uses?</p> <p>Would development of the site:</p> <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 limit contamination/degradation/loss of soils due to development	
	To concentrate new developments on previously developed land (PDL)	
	To minimise use of greenfield sites for development	
	To optimise the efficient use of land by measures such as higher densities and mixed use developments	
To encourage the remediation of contaminated and derelict land and buildings		
7. To use natural resources, both finite and renewable, as efficiently as possible, and re-use finite resources or recycled alternatives wherever possible [Resource efficiency]	To encourage maximum efficiency and appropriate use of materials, particularly from local and regional sources, using sustainable design and construction techniques	<p>Would development of the site:</p> <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 encourage new developments to incorporate renewable, secondary, locally sustainably sourced or materials of lower environmental impact in buildings and infrastructure	
	To safeguard reserves of exploitable minerals from sterilisation by other developments	
	To increase recycling and composting rates and encourage easily accessible recycling systems as part of new developments	
	To promote all developments and occupants to minimise waste and optimise the recovery and recycling of waste.	

Historic Environment		
8. To identify, maintain and enhance the historic environment and cultural assets [Historic environment]	To safeguard and enhance the historic environment and restore historic character where appropriate, based on sound historical evidence	Could development of the site enhance features & settings of historical, archaeological or cultural importance and the enjoyment of such assets? Would development of the site adversely affect a Conservation Area, Listed Building, HP&G, area of archaeological importance, or SAM? Would development adversely affect a building, structure or area of local heritage significance?
	To promote local distinctiveness by maintaining and restoring historic buildings and areas including their settings, 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		
9. To conserve and enhance landscape and townscape character and encourage local distinctiveness [Landscape & townscape]	To protect and enhance landscape and townscape character	Would development of the site: <ul style="list-style-type: none"> • have the potential to enhance the quality & diversity of landscape / townscape? • lead to coalescence of existing towns/villages? • be likely to adversely affect an area of landscape importance? Would development of the site affect townscapes? Would development of the site provide green infrastructure as part of wider strategy?
	To evaluate the sensitivity of the landscape to new/inappropriate developments and avoid inappropriate developments in these areas	
	To protect the purpose for which the Chilterns AONB is designated	
	To protect ‘dark skies’ from light pollution, and promote less invasive lighting sources while considering the balance between safety and environmental impacts	
	To minimise the visual impact of new developments	
	To encourage contribution of public art	
Population & Human Health, and Social Factors		
10. To improve the health and wellbeing of the local population [Health & wellbeing]	To include measures which will improve everyone’s access to high quality health care facilities	Would development of the site: <ul style="list-style-type: none"> • provide new healthcare facilities or enable access to existing ones? • provide opportunities to extend or improve the cycle/footpath network? • affect public rights of way? • provide open space for informal and/or formal recreation? • enable enhanced access to existing open / recreational 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 promote and enable the health advantages of walking and cycling and community based activities	
	To identify, protect and enhance open spaces, such as rivers and canals, parks and gardens, allotments and playing fields, and the links between them, for the benefit of people and wildlife	
	To minimise noise and odour pollution, particularly in residential areas	
	To narrow the income gap between the poorest and wealthiest parts of the area and to reduce health differential	
	To take health and access issues into account in new developments	

<p>11. To develop in sustainable locations [Sustainable locations]</p>	<p>To reduce the need to travel, particularly by private car, through closer integration of housing, jobs and services</p> <p>To enable and encourage walking, cycling and the use of public transport</p> <p>To ensure that services and facilities are accessible by sustainable modes of transport</p> <p>To encourage provision of new and support existing local centres</p> <p>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</p>	<p>Would development of the site help to reduce the need to travel?</p> <p>Is the site within a main settlement?</p> <p>Is the site within close proximity to key services (e.g. schools, food shops, public transport, health centres etc.)?</p> <p>Is the site suitable for the promotion of Green Transport Plans, including car pools, car sharing and choice of non-fossil fuel powered vehicles, as part of new developments?</p> <p>Does the site have the potential for facilities for cycle parking and storage?</p>
<p>12. To improve community cohesion through reducing inequalities, promoting social inclusion and reducing crime and the fear of crime [Community cohesion]</p>	<p>To include measures which will improve everyone’s access to high quality education, community facilities and public transport</p> <p>To recognise the value of the multi-cultural/faith diversity of the peoples in the Borough</p> <p>To improve the quality of life in urban areas by making them more attractive places in which to live and work, and to visit</p> <p>To encourage community cohesion</p> <p>To encourage high quality design in new developments, including mixed uses, to create local identity and encourage a sense of community pride</p> <p>To ensure facilities and services are accessible by people with disabilities and minority groups</p> <p>To encourage people to access the learning and skills they need for high quality of life</p> <p>To ensure that the Plan does not discriminate on the basis of disability, ethnic minority, or gender</p> <p>To tackle deprivation in the Borough’s most deprived areas</p> <p>To plan new developments to help reduce crime and fear of crime through thoughtful design of the physical environment, and by promoting well-used streets and public spaces</p> <p>To support crime/safety initiatives to tackle anti-social behaviour</p>	<p>Would development of the site:</p> <ul style="list-style-type: none"> • provide local community services & facilities or enable access to existing ones? • provide facilities that existing communities could share? • help support existing community facilities? • promote mixed tenure & mixed use? • include provision of religious / cultural uses? <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)?

13. Ensure that everyone has access to good quality housing that meets their needs [Housing]	To contribute towards meeting the Borough’s housing needs	Would development of the site secure: <ul style="list-style-type: none"> • affordable homes? • Lifetime Homes?
	To provide a range of housing types, size and tenure, including high quality affordable and key worker housing that meet the needs of all communities with the Borough	
	To reduce the percentage of unfit/non-decent homes	
	To help reduce homelessness	
	Meet the needs of the gypsy and traveller communities	
Economic Factors		
14. Achieve sustainable levels of prosperity and economic growth [Sustainable prosperity]	To support an economy in the Borough which draws on the knowledge base, creativity and enterprise of its people	Would development of the site: <ul style="list-style-type: none"> • lead to the loss of viable employment/jobs? • contribute employment floorspace? • support the vibrancy of the town and local centres?
	To promote and support economic diversity, micro, small and medium sized enterprises, community-based enterprises and local investment	
	To support the economy with high quality infrastructure and a high quality environment	
	To improve the competitiveness of the rural economy	
	To promote the role of town centres as centres for sustainable development providing services, housing and employment, drawing on the principles of urban renaissance	
	To strengthen the Borough’s retail offering in order to reduce outflow of retail spending	
	To encourage complementary hierarchy of retail centres and promote cohesive economic development	
15. To ensure local residents have employment opportunities and access to training [Employment & skills]	To encourage local provision of and access to jobs	Would development of the site: <ul style="list-style-type: none"> • encourage provision of jobs for local people? • enable local people to work near their homes? • encourage provision of local skills development and training?
	To reduce levels of out-commuting	
	To enable the provision of new and enhanced educational facilities	
	To provide training that will help people acquire the skills needed to find and remain in employment	

Appendix B: SA Assessments

This appendix includes the assessment of the Growth Options included in the Issues and Options Paper

The following tables outline the symbology and abbreviations used to document the results of the assessment process.

The results of the assessment utilise the following key to categorise the nature of the effect.

Significance Assessment	Description
✓✓	The option is likely to have a significant positive effect
✓	The option is likely to have a positive effect which is not significant
?	Uncertain – It is uncertain how or if the option impacts on the SA/SEA objective
-	Neutral – The option is unlikely to impact on the SA/SEA objective
✘	The option is likely to have a negative effect which is not significant
✘✘	The option is likely to have a significant negative effect
+/-	The option is likely to have some positive and some negative effects, none of which are significant

The table below outlines the Sustainability Objectives that have been used to focus the assessment process and details the reference term which is used in the assessment tables for the sake of brevity. The full framework of objectives and associated sub-objectives can be found in Appendix A to this document.

SA Objective		Reference Term
1	To protect, maintain and enhance biodiversity and geodiversity at all levels	Biodiversity & geodiversity
2	To protect, maintain and enhance water resources (including water quality and quantity)	Water quality/quantity
3	To reduce flood risk	Flood risk
4	Reduce greenhouse gas emissions and adapt to the effects of climate	Climate change
5	Achieve good air quality, especially in urban areas	Air quality
6	Make efficient use of land and protect soils	Soils
7	To use natural resources, both finite and renewable, as efficiently as possible, and re-use finite resources or recycled alternatives wherever possible	Resource efficiency
8	To identify, maintain and enhance the historic environment and cultural assets	Historic environment
9	To conserve and enhance landscape and townscape character and encourage local distinctiveness	Landscape & townscape
10	To improve the health and wellbeing of the local population	Health & wellbeing
11	To develop in sustainable locations	Sustainable locations
12	To improve community cohesion through reducing inequalities, promoting social inclusion and reducing crime and the fear of crime	Community cohesion
13	Ensure that everyone has access to good quality housing that meets their needs	Housing
14	Achieve sustainable levels of prosperity and economic growth	Sustainable prosperity
15	To ensure local residents have employment opportunities and access to training	Employment & skills

Growth options

The table below provides assessments of the seven growth options that are included in the Issues and Option Paper as follows:

Option 1: Draft Government figure.

- Sub-Options: 1a Focus on three towns; 1b Greater focus at Hemel Hempstead; and 1c Spread more evenly across the Borough

Option 2: Locally assessed need

- Sub-Options: 2a Focus on three towns; 2b Greater focus at Hemel Hempstead; and 2c Spread more evenly across the Borough

Option 3: Upper Government figure (with no sub-options)

SA Objective	Option 1a 602 dpa 3 town focus	Option 1b 602 dpa Hemel focus	Option 1c 602 dpa More dispersed	Option 2a 756 dpa 3 town focus	Option 2b 756 dpa Hemel focus	Option 2c 756 dpa More dispersed	Option 3 1,000-1,100 dpa Across Borough
SA1: Biodiversity	<p>Context: The Chilterns Beechwoods SAC Site Improvement Plan (Natural England, 2015) identifies ‘Public Access/Disturbance’ as a threat to the SAC Feature ‘S1083 Stag beetle’. The identified mitigation is to ‘Reduce visitor impact on dead wood’. The provision of SANGs in large new developments in Dacorum will be needed in order to contribute towards this mitigation.</p> <p>The Site Improvement Plan also identifies ‘Air Pollution: impact of atmospheric nitrogen deposition’ as a pressure on the SAC features of ‘H6210 Dry grasslands and scrublands on chalk or limestone (important orchid sites)’, ‘H9130 Beech forests on neutral to rich soils’, and ‘S1083 Stag beetle’. The mitigation identified is for Natural England to ‘Establish a Site Nitrogen Action Plan’. Any measures in the Dacorum Local Plan that can reduce nitrogen deposition on the SAC, particularly transport related deposition, will help to mitigate this issue.</p>						
	x/?	x/?	x/?	x/?	x/?	x/?	x/?
	<p>Generic effects for all options: All the options require the delivery of the c. 10,940 homes on existing and planned sites that are consistent with existing planning policies (the Urban Capacity sites). The significance of the effects on biodiversity of delivering these sites will be dependent on the biodiversity value of the sites, irrespective of whether they are greenfield land or previously developed land (which can have a high biodiversity value). Mitigation measures will need to be put in place in order to minimise any impacts on biodiversity and geodiversity associated with new developments.</p> <p>Any development of greenfield land could have adverse impacts on habitats and species due to landtake, habitat fragmentation, urban pollution issues etc. The higher the level of housing provision the greater the amount of greenfield land required.</p>						

SA Objective	Option 1a 602 dpa 3 town focus	Option 1b 602 dpa Hemel focus	Option 1c 602 dpa More dispersed	Option 2a 756 dpa 3 town focus	Option 2b 756 dpa Hemel focus	Option 2c 756 dpa More dispersed	Option 3 1,000-1,100 dpa Across Borough	
	<p>Generic effects for Option 1: Development of greenfield land that would be required to deliver this level of growth could have adverse impacts on habitats and species. Effects will be dependent on the specific sites taken forward for development, in particular the existing biodiversity value of the sites that would be affected.</p> <p>New development could also have adverse effects in terms of wider disturbance to species though increased vehicle numbers, additional pressures from recreation, light and noise pollution and disturbance/predation from domestic animals. The Chilterns Beechwoods SAC/SSSI at Ashridge, Tring Park, Tring Reservoirs and the Grand Union Canal are all reported to be experiencing visitor pressures. As the urban population increases, pressures on access to the countryside and these key attractions will increase.</p> <p>However, new development could result in habitat enhancement and improved habitat connectivity, particularly at larger sites where there will be the greatest opportunities for providing new green infrastructure. It could be that the higher levels of growth provide increased opportunities over the lower levels. The provision of Suitable Alternative Natural Greenspace (SANGs) as part of large new developments would help to reduce recreational pressure at current ‘honeypot’ sites such as the Ashridge Estate.</p>			<p>Generic effects for Option 2: As for Option 1 but with a greater potential for adverse effects given the higher level of development proposed, as well as increased opportunities for enhancements, including the provision of SANGS.</p>			<p>Generic effects for Option 3: As for Options 1 and 2 but with a greater potential for adverse effects given the higher level of development proposed, as well as increased opportunities for enhancements, including the provision of SANGS.</p>	
	<p>Option 1a: The scale of Green Belt development at Hemel under this option provides the opportunity for the provision of SANGs which would help to reduce recreational pressure on the</p>	<p>Option 1b: The scale of Green Belt development at Hemel under this option provides the opportunity for the provision of SANGs which would help to reduce</p>	<p>Option 1c: The scale of Green Belt development at Tring under this option provides the opportunity for the provision of SANGs which would help to reduce recreational</p>	<p>Option 2a: The scale of Green Belt development at Hemel and Tring under this option provides the opportunity for the provision of SANGs which would help to reduce recreational</p>	<p>Option 2b: The scale of Green Belt development at Hemel and Tring under this option provides the opportunity for the provision of SANGs which would help to reduce recreational</p>	<p>Option 2c: The scale of Green Belt development at Hemel and Tring under this option provides the opportunity for the provision of SANGs which would help to reduce</p>	<p>Option 3: The scale of Green Belt development at Hemel and Tring under this option provides the opportunity for the provision of SANGs which would help to reduce recreational pressure on the Chilterns Beechwoods SAC. Green Belt release at other locations may not be able to provide SANGs, given the smaller size of site ‘parcels’ that would make up the likely sites for development.</p>	

SA Objective	Option 1a 602 dpa 3 town focus	Option 1b 602 dpa Hemel focus	Option 1c 602 dpa More dispersed	Option 2a 756 dpa 3 town focus	Option 2b 756 dpa Hemel focus	Option 2c 756 dpa More dispersed	Option 3 1,000-1,100 dpa Across Borough
	<p>Chilterns Beechwoods SAC. Green Belt release at other locations may not be able to provide SANGs, given the smaller size of site ‘parcels’ that would make up the likely sites for development.</p>	<p>recreational pressure on the Chilterns Beechwoods SAC.</p>	<p>pressure on the Chilterns Beechwoods SAC. Option 1c does not include Green Belt release at Hemel and is therefore not likely to provide the opportunity for the delivery of SANGs. It is uncertain as to whether development at the other towns/villages could provide suitable SANGs to take pressure off the Chilterns Beechwoods SAC.</p>	<p>pressure on the Chilterns Beechwoods SAC. Green Belt release at other locations may not be able to provide SANGs given the smaller size of site ‘parcels’ that would make up the likely sites for development.</p>	<p>pressure on the Chilterns Beechwoods SAC. Green Belt release at Berkhamsted may not be able to provide SANGs, given the smaller size of site ‘parcels’ that would make up the likely sites for development at Berkhamsted</p>	<p>recreational pressure on the Chilterns Beechwoods SAC. Green Belt release at other locations may not be able to provide SANGs given the smaller size of site ‘parcels’ that would make up the likely sites for development.</p>	
<p>Mitigation: Amongst others, the proposed Local Plan policies covering Green Infrastructure; Open land and open space; Nature Conservation: SSSIs, Nature reserves, Biodiversity Areas and green corridors; Trees, Hedgerows and Woodlands (preservation, planting and management); Environmental improvements and sustainability offsetting; and Environmental protection (including lighting, noise, air quality, etc.) will provide the policy framework to help to mitigate the potential adverse effects associated with the potentially high levels of housing development, as well as seeking opportunities for enhancements.</p> <p>The Scoping Report identified the opportunities to link the ‘Living Landscape’ areas of the Gade Valley and Berkhamsted Common, as well as to provide an appropriate landscape/ecological buffer to Ashridge in the face of planned growth of Hemel Hempstead. Transport corridors such as the A41 often represent key wildlife corridors and provide opportunities for enhanced habitat linkages.</p>							
SA2: Water	<p>Context: In 2014/15 the household water use in Dacorum was estimated to be 151.97 litres per head per day which was one of the highest within the County compared to other districts.</p> <p>Groundwater resources are now at or approaching full utilisation, and many rivers and streams including the Bulbourne, Gade and Ver suffer from low flows which detrimentally impacts upon water quality. The Chilterns Chalk Streams are particularly susceptible to over abstraction. The Catchment Abstraction Management Strategy</p>						

SA Objective	Option 1a 602 dpa 3 town focus	Option 1b 602 dpa Hemel focus	Option 1c 602 dpa More dispersed	Option 2a 756 dpa 3 town focus	Option 2b 756 dpa Hemel focus	Option 2c 756 dpa More dispersed	Option 3 1,000-1,100 dpa Across Borough
<p>(CAMS) for the Colne catchment identified that the underlying chalk aquifer is assessed as being ‘over-abstracted’.</p> <p>Groundwater is a source of drinking water as well as maintaining the flow in many rivers. In order to protect these sources (e.g. wells, boreholes and springs used for public drinking water supply) the Environment Agency has defined groundwater Source Protection Zones (SPZs) which are designed to protect individual groundwater sources from any activities that might cause pollution in the area. In this context they are used to inform pollution prevention measures in areas which are at a higher risk, and to monitor the activities of potential polluting activities nearby. A large proportion of the Borough is covered by SPZs, with ‘inner zones’ north of Hemel Hempstead, at Berkhamsted and south-east of Tring.</p> <p>A Water Cycle Scoping Study was undertaken in 2010 (covering Dacorum BC, St Albans City & District Council, Three Rivers DC, Watford BC and Welwyn and Hatfield BC) to inform the preparation of Local Plans and provide evidence to support any policies that relate to water resources, supply and sewerage, wastewater treatment, flood risk, water quality and the wider water environment. The ‘Water Project for Hertfordshire’ is providing the evidence to support the update to the Water Cycle Scoping Study that is due to be published later in 2017. The study covers both potable and waste water.</p>							
<p>x/? x/? x/? x/? x/? x/? x/?</p>							
<p>Generic effects for all options: All the options require the delivery of the c.10,940 homes on existing and planned sites that are consistent with existing planning policies (the Urban Capacity sites).</p> <p>Housing development will result in an increase in water demand, although there will be continued efforts to improve water use efficiency, with associated implications for local water resources. The higher the level of housing the greater the potential effects will be.</p> <p>New development could also result in the pollution of water course both during construction and when developments are occupied.</p>							
<p>Generic effects for Option 1: Providing 602 dpa would put additional pressure on water resources and which could cause issues with potable water supply. The effect is likely to become more significant over time as more dwellings are built and risk of periodic water shortages increase.</p> <p>In addition the new development increases the potential for water pollution, associated with increased run-off from impermeable surfaces and the potential for sewer flooding in high rainfall events.</p>			<p>Generic effects for Option 2: As for Option 1 but with a greater potential for adverse effects given the higher level of development proposed and the subsequent increased water usage.</p>			<p>Generic effects for Option 3: As for Options 1 and 2 but with a greater potential for adverse effects given the higher level of development proposed and the subsequent increased water usage.</p>	
No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.
<p>Mitigation: Amongst others, the proposed Local Plan policies covering Water environment: lakes, reservoirs, ponds and canals; Sustainable Design and Construction; Development affecting and management of the Grand Union Canal; Environmental improvements and sustainability offsetting; and Environmental protection (including lighting, noise, air quality, etc.) will provide the policy framework to help to mitigate the potential adverse effects on water quality and the availability of water resources that may arise from new development.</p>							

SA Objective	Option 1a 602 dpa 3 town focus	Option 1b 602 dpa Hemel focus	Option 1c 602 dpa More dispersed	Option 2a 756 dpa 3 town focus	Option 2b 756 dpa Hemel focus	Option 2c 756 dpa More dispersed	Option 3 1,000-1,100 dpa Across Borough	
SA3: Flood risk	<p>Context: The area of the Borough that lies in a flood risk zone is relatively small, and in terms of the larger settlements is mainly limited to areas close to the River Bulbourne in Berkhamsted; the River Bulbourne and River Gade in Hemel Hempstead; the River Gade/Grand Union Canal in Kings Langley; and the River Ver in Markyate.</p> <p>A Stage 2 Strategic Flood Risk Assessment (SFRA) undertaken in 2008 concluded that there were only three areas of the Borough at risk of flooding: Hemel Hempstead Town Centre; Moor End Road, Hemel Hempstead; and Two Waters Road (south of the roundabout), Hemel Hempstead. The study also suggested that land between the Grand Union Canal and the River Bulbourne in Berkhamsted would be severely inundated with water if a breach of the canal occurred.</p> <p>The SFRA will be updated in 2017 to reflect revised flood zone mapping provided by the Environment Agency. The conclusions of this new study will be an important factor in deciding where to locate new development - and which areas should be avoided.</p>							
	<p>Generic effects for all options: All the options require the delivery of the c.10,940 homes on existing and planned sites that are consistent with existing planning policies (the Urban Capacity sites). This would include the Two Waters area of Hemel Hempstead that has potential flood risk issues.</p> <p>Building new developments may increase surface water flood risk in already poorly draining areas. This could have an impact on existing homes/businesses as well as new ones if not mitigated at the time of construction.</p>							
	-	-	-	-	-	-	-	-
	<p>Generic effects for Option 1: No predicted effects. The option could be delivered without the need to build new dwellings in flood risk zones.</p>			<p>Generic effects for Option 2: No predicted effects. The option could be delivered without the need to build new dwellings in flood risk zones.</p>		<p>Generic effects for Option 3: No predicted effects. The option could be delivered without the need to build new dwellings in flood risk zones.</p>		
	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.
	<p>Mitigation: Local Plan proposals should avoid development in areas of flood risk (e.g. Flood Zones 2 and 3a / 3b), applying the sequential approach to site selection so that development is, as far as reasonably possible, located where the risk of flooding (from all sources) is lowest, taking account of climate change and the vulnerability of future uses to flood risk (DCLG).</p> <p>The proposed Local Plan policy covering Water environment: lakes, reservoirs, ponds and canals should ensure that new development avoids Flood Zones 2 and 3 – unless it is a compatible use.</p> <p>Opportunities for the provision of Sustainable Drainage Systems (SUDs) should be maximised in new developments.</p>							
SA4: Climate change	<p>Context: In 2014 transport contributed around 38% of greenhouse gas emissions within the Borough (an increase from 30% in 2005 and 32% in 2010). These were almost entirely attributed to road transport (99%).</p> <p>Levels of transport emissions will be dependent on where the new residents are employed. If the new housing simply results in increased levels of out-commuting then GHG</p>							

SA Objective	Option 1a 602 dpa 3 town focus	Option 1b 602 dpa Hemel focus	Option 1c 602 dpa More dispersed	Option 2a 756 dpa 3 town focus	Option 2b 756 dpa Hemel focus	Option 2c 756 dpa More dispersed	Option 3 1,000-1,100 dpa Across Borough
	emission increases could be high.						
	x/?	x/?	x	x/?	x/?	x/?	x/?
	<p>Generic effects for all options: All the options require the delivery of the c.10,940 homes on existing and planned sites that are consistent with existing planning policies (the Urban Capacity sites). As a general rule these sites will be closer to facilities in the town and village centres and so should provide the opportunities for sustainable modes of travel to be used, thereby reducing the growth in greenhouse gas emissions.</p> <p>Housing development will result in an increase in greenhouse gas emissions from energy used in new housing and associated activities including increases in traffic. The higher the level of housing the greater this increase will be.</p> <p>Development can help to mitigate and adapt to the impacts of climate change, through sustainable design and construction and reducing the need to travel, particularly by car.</p> <p>Growth in and around the Borough will place increased strain on the existing transport infrastructure. Traffic congestion is a problem, particularly in Hemel Hempstead and in order to reduce carbon emissions, there is a need to encourage public transport, walking and cycling as alternatives to the car.</p> <p>GHG emissions relating to travelling to work will be dependent on whether suitable new employment opportunities are provided in order to reduce the need to commute.</p>						
	<p>Generic effects for Option 1: This option would result in an increase in greenhouse gas emissions relating to additional road traffic that would result as well as from the occupation and construction of the new dwellings.</p>			<p>Generic effects for Option 2: As for Option 1 but with a greater increase in greenhouse emissions due the higher level of housing development proposed under this option.</p> <p>The larger new developments under this option could provide district heating opportunities.</p>		<p>Generic effects for Option 3: As for Options 1 and 2 but with a greater increase in greenhouse gas emissions due the higher level of housing development proposed under this option.</p> <p>The larger new developments under this option could provide district heating opportunities.</p>	
	Option 1a: Concentrating the lower level of growth at the three main towns means that new Green Belt development would be located in proximity of the settlements with the most services, thereby reducing the need to travel	Option 1b: Focusing all the new Green Belt development at Hemel means that it would be in proximity to the Borough’s largest town, thereby reducing the need to travel to access services, thereby reducing the	Option 1c: Providing no new Green Belt development at Hemel and distributing it in other locations across the Borough would increase the overall need to travel to access main services in	Option 2a: The proposed distribution of new development in the Green Belt under Option 2a concentrates the majority of the growth at the three main towns, with some growth at Bovingdon, meaning that new	Option 2b: The proposed distribution of new development in the Green Belt under Option 2b includes all of the growth at the three main towns, meaning that new Green Belt development would be located in proximity of the	Option 2c: Whilst Options 2a and 2b are relatively similar in terms of the distribution of the new development in the Green Belt, Option 2c spreads the growth across the Borough, including some development on	Option 3 requires the maximum levels of development in all six of the Borough’s main settlements, although it does require some development of sites in the small villages and the countryside.
	Under this Option most development would be distributed in a way that would help reduce the need to travel thereby reducing the growth in greenhouse gas emissions.						

SA Objective	Option 1a 602 dpa 3 town focus	Option 1b 602 dpa Hemel focus	Option 1c 602 dpa More dispersed	Option 2a 756 dpa 3 town focus	Option 2b 756 dpa Hemel focus	Option 2c 756 dpa More dispersed	Option 3 1,000-1,100 dpa Across Borough
	and reducing the growth in greenhouse gas emissions.	growth in greenhouse gas emissions.	Hemel Hempstead when compared to Options 1a and 1b which is likely to result in increased greenhouse gas emissions.	Green Belt development would be located in proximity of the settlements with the most services, thereby reducing the need to travel and reducing the growth in greenhouse gas emissions.	settlements with the most services, thereby reducing the need to travel and reducing the growth in greenhouse gas emissions.	sites in the small villages and the countryside. This distribution broadly reflects the size of the settlements in concern, but compared to Options 2a and 2b would increase the need to travel to access main services, with some associated additional greenhouse gas emissions, although not in the same proportion as Option 1c.	
<p>Uncertainties: Whilst it is inevitable that the delivery of housing growth will result in increased greenhouse gas emissions caused by the construction and occupation of the housing, given that building regulations do not require zero carbon homes, as well as through associated transport emissions, one major area of uncertainty relates to how any potential new roads that might be associated with new developments (for example a Northern Relief Road at Hemel Hempstead or a North/South Link Road at Tring) would affect levels of greenhouse gas emissions. If they reduce congestion without resulting in increased traffic levels then they could have beneficial effects, but if they result in increased car use then they could have the opposite effect.</p> <p>If traffic is displaced from the town centres then measures should be taken to ‘lock-in’ the benefits, such as through the introduction of demand management measures (e.g. traffic calming and traffic restrictions). This would not only reduce traffic in the town centres but may also encourage the increased take up of walking and cycling in these ‘now safer’ areas. This would not only have positive effects in terms of reducing the growth in greenhouse gas emissions but would also have benefits for air quality, health and wellbeing, community cohesion and the local economy.</p> <p>Traffic modelling which has yet to be undertaken will help in gaining a greater understanding of the likely effects associated with the potential introduction of these new road links and inform the next stage of the SA process. Currently however there is a high level of uncertainty as to the likely effects.</p> <p>Whilst the Local Plan can guide development to sustainable locations and provide policies that encourage the take up of sustainable modes of travel, the level of effects will ultimately depend on the take up of such measures by new and existing residents – based on individuals’ personal preferences.</p>							

SA Objective	Option 1a 602 dpa 3 town focus	Option 1b 602 dpa Hemel focus	Option 1c 602 dpa More dispersed	Option 2a 756 dpa 3 town focus	Option 2b 756 dpa Hemel focus	Option 2c 756 dpa More dispersed	Option 3 1,000-1,100 dpa Across Borough
	<p>Mitigation: Amongst others the proposed Local Plan policies covering Distribution of Development; Carbon Emission Reductions; Sustainable Design and Construction; Green Infrastructure; and Sustainable Transport will help towards minimising the growth in greenhouse gas emissions that would inevitably result for the scale of new development that will need to be provided in the Borough.</p> <p>The Local Plan will seek to balance the demand for homes and jobs and provide opportunities for people to work locally, thereby providing the potential for a reduced need to travel.</p>						
SA5: Air quality	<p>Context: 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 three Air Quality Management Areas (AQMA) have formally been declared within the Borough. These are at: AQMA No 1 Lawn Lane, Hemel Hempstead; AQMA No 2 London Road, Apsley; and AQMA No 3 High Street, Northchurch. It will need to be determined whether proposed new developments are likely to exacerbate the air quality issues in these specific areas.</p>						
	<p>x x x x x x x</p>						
	<p>All the options require the delivery of the c.10,940 homes on existing and planned sites that are consistent with existing planning policies (the Urban Capacity sites). As a general rule these sites will be closer to facilities in the town and village centres and so should provide the opportunities for sustainable modes of travel to be used, thereby reducing the growth in airborne emissions.</p> <p>Generic effects for all options:</p> <p>Road transport emissions are the major contribution to the burden of air pollution encountered in the Borough. Building additional new homes will contribute to background emissions through an increase in vehicles on the road. During construction there are potential adverse effects on local air quality close to the development sites.</p> <p>Housing development will result in an increase in traffic levels, with associated implications for local air quality. The higher the level of housing the greater the potential effects will be.</p> <p>As for GHG emissions, air pollution relating to travelling to work will be dependent on whether suitable new employment opportunities are provided in order to reduce the need to commute.</p> <p>As the vehicle fleet is replaced over time by vehicles having reduced or zero emissions (particularly of NOx and particulates) so the contribution of traffic towards air quality issues will diminish.</p>						
	<p>Generic effects for Option 1: The levels of growth under this option will result an increase in airborne emissions during both construction and once the dwellings are occupied, the latter predominantly from increased vehicle use.</p>			<p>Generic effects for Option 2: As for Option 1 but with a greater potential for adverse effects relating to air quality due to the higher level of housing development proposed under this option.</p>		<p>Generic effects for Option 3: As for Options 1 and 2 but with a greater potential for adverse effects relating to air quality due to the higher level of housing development proposed under this option.</p>	
No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.

SA Objective	Option 1a 602 dpa 3 town focus	Option 1b 602 dpa Hemel focus	Option 1c 602 dpa More dispersed	Option 2a 756 dpa 3 town focus	Option 2b 756 dpa Hemel focus	Option 2c 756 dpa More dispersed	Option 3 1,000-1,100 dpa Across Borough
<p>Uncertainties: See SA4 Climate Change for details of the uncertainty relating to the potential for new roads to be provided as part of larger developments.</p> <p>Mitigation: The proposed Local Plan policies covering Environmental protection (including lighting, noise, air quality, etc.); Sustainable Transport; Management of Roads; and Highway design and traffic management should help to ensure that local air quality is taken into consideration and mitigated.</p> <p>The Local Plan policies should not just seek to improve local air quality and not exacerbate conditions in the AQMAs, they should also take account of existing local air quality issues when selecting locations for sensitive developments (e.g. schools, care homes etc.).</p>							
SA6: Soils	x	x	x	x	x	x	xx
	<p>Generic effects for all options: All the options require the delivery of the c.10,940 homes on existing and planned sites that are consistent with existing planning policies (the Urban Capacity sites). Developing these sites will inevitably result in soil sealing. All options would therefore result in approximately the same level of development of previously developed land.</p> <p>Housing development will result in soil sealing from new housing and associated infrastructure. Development on brownfield sites may provide opportunities for remediating contaminated land.</p> <p>The higher the level of housing the greater the amount of soil sealing that will result.</p>						
	<p>Generic effects for Option 1: Option 1a-c would all require development of just under 3,000 new dwellings on greenfield sites in the Green Belt, with associated adverse effects on soils, through soil damage and sealing. Of the 10,940 homes in non-GB locations it is likely that approximately one third of these will be on greenfield sites, with the same effects resulting.</p>			<p>Generic effects for Option 2: Option 2a-c would all require development of approximately 6,500 new dwellings on greenfield sites in the Green Belt, with associated adverse effects on soils, through soil damage and sealing. Of the 10,940 homes in non-GB locations it is likely that approximately one third of these will be on greenfield sites, with the same effects resulting.</p>		<p>Generic effects for Option 3: Option 3 would require development of approximately 14,000 new dwellings on greenfield sites in the Green Belt, with associated likely significant adverse effects on soils, through soil damage and sealing. Of the 10,940 homes in non-GB locations it is likely that approximately one third of these will be on greenfield sites, with the same effects resulting.</p>	
	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.
<p>Mitigation: The proposed Local Plan policy covering Environmental protection (including lighting, noise, air quality, etc.) should help to ensure that the protection of soils is taken into consideration and mitigated.</p> <p>Local Plan policies and proposals should encourage the effective use of land by re-using land that has been previously developed (brownfield land) in preference to using greenfield sites. Development on the best and most versatile agricultural land should also be avoided where possible.</p>							

SA Objective	Option 1a 602 dpa 3 town focus	Option 1b 602 dpa Hemel focus	Option 1c 602 dpa More dispersed	Option 2a 756 dpa 3 town focus	Option 2b 756 dpa Hemel focus	Option 2c 756 dpa More dispersed	Option 3 1,000-1,100 dpa Across Borough	
SA7: Resource efficiency	<p>Context: Hertfordshire as a county currently has to use sites in Buckinghamshire and Oxfordshire in order to meet its waste management needs.</p> <p>In relation to waste water infrastructure Dacorum BC and the other Local Planning Authorities will need to continue to consult with Thames Water about the phasing and planning of future development within the Maple Lodge WwTW catchment area to ensure they can investigate, plan and secure appropriate funding for the construction of any necessary infrastructure.</p> <p>The south part of the Borough is located in the sand and gravel belt. This needs to be taken into consideration when planning for new development in order to prevent the sterilisation of mineral resources.</p>							
	<p>x x x x x x x</p>							
	<p>Generic effects for all options: All the options require the delivery of the c.10,940 homes on existing and planned sites that are consistent with existing planning policies (the Urban Capacity sites). Developing these sites will require resource use and result in increased levels of waste generation.</p> <p>All levels of housing growth will put demands on natural resources and result in increased waste generation. The higher the level of housing the greater this demand will be.</p>							
	<p>Generic effects for Option 1: Any level of growth would result in resource use in construction and waste generation once the dwellings are occupied.</p> <p>It will also place demand on waste and sewerage infrastructures.</p> <p>At this level of growth there may need to be some improvements to local waste water treatment works after 2031.</p>			<p>Generic effects for Option 2: As for Option 1 but with a greater potential for adverse effects due the higher level of resource use and waste generation associated with the higher levels of housing development proposed under this option.</p> <p>At this level of growth there would need to be some improvements to local waste water treatment works after 2031.</p>		<p>Generic effects for Option 3: As for Options 1 and 2 but with a greater potential for adverse effects due the higher level of resource use and waste generation associated with the higher levels of housing development proposed under this option.</p> <p>At this level of growth there would need to be some improvements to local waste water treatment works after 2031.</p>		
	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.
	<p>Mitigation: Amongst others the proposed Local Plan policies covering Sustainable Design and Construction; Waste Prevention and Reduction; Infrastructure and Developer Contributions; and Environmental improvements and sustainability offsetting will help towards minimising the resources required to deliver new development and reducing the waste generated by the new development, as well as ensuring that there is sufficient infrastructure in place to cope with the increases associated with the potential levels of growth.</p>							

SA8: Historic Environment	<p>Context: Dacorum’s cultural heritage is a key feature of the Borough. The local authority area covers a large area of the old ‘Hundred of Dacorum’ which dates back to the Saxon period. Many of the important heritage features and areas within Dacorum are recognised through historic environment designations. There are also a large number of non-designated heritage assets.</p> <p>The historic built environment, including heritage assets, is under pressure from development and regeneration and associated traffic congestion, air quality and noise pollution. This puts heritage assets at risk of neglect or decay. The threat of infilling and replacement with new buildings and the erosion of historic features in the public realm need to be carefully mitigated and managed.</p>													
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	<p>Generic effects for all options: All the options require the delivery of the c.10,940 homes on existing and planned sites that are consistent with existing planning policies (the Urban Capacity sites). The significance of the effects on the historic environment of delivering these sites will be dependent on the heritage assets and their settings that are associated with the sites.</p> <p>Development may result in significant loss or erosion of the landscape or townscape character or quality, which is likely to also have an impact (direct and or indirect) upon the historic environment and people’s enjoyment of it.</p> <p>The higher the level of housing the greater the potential there is for adverse effects on the historic environment.</p>													
	<p>Generic effects for Option 1: Effects on the historic environment will be dependent on the specific locations taken forward for development and the design of new developments.</p>			<p>Generic effects for Option 2: As for Option 1 but with a greater potential for adverse effects given the higher level of development proposed and the greater potential that this provides in terms of adversely affecting the historic environment and coming up against heritage constraints (e.g. archaeological resources, known and unknown).</p>		<p>Generic effects for Option 3: As for Options 1 and 2 but with a greater potential for adverse effects given the higher level of development proposed.</p>								
No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.								
<p>Mitigation: Amongst others the proposed Local Plan policies covering Quality of the Historic Environment; Development affecting the historic environment: archaeological remains, historic park and gardens and/or listed buildings; Development affecting Conservation Areas; Quality of Settlement and Neighbourhood Design; Quality of the Public Realm; and Height of buildings will help towards minimising the effects on the historic environment, including on designated and non-designated heritage assets and their settings, as well as seeking to provide enhancements.</p> <p>Dacorum BC have in place a number of Conservation Area Appraisals which set out the special qualities and sensitivities of the Conservation Areas. These will be taken into account when considering sites and developing mitigation measures.</p>														
SA9: Landscape / Townscape	<p>Context: With 10,690 ha of the Borough (just over 50%) being within the Metropolitan Green Belt, and the constraint that this brings, there is a challenge to identify a sufficient size and number of development sites to meet the Borough’s housing and employment needs whilst taking account of the role and function of the Green Belt. The majority of Dacorum falls within the ‘Chilterns’ national character area. A large section of this is protected as part of the Chilterns Area of Outstanding Natural Beauty (CAONB). Its special qualities include the steep chalk escarpment with areas of flower-rich downland, woodland, commons, tranquil valleys, the network of ancient routes, villages with their brick and flint houses, chalk streams and a rich historic environment.</p>													
	x/?	x/?	x/?	x	x	x	xx							

<p>Generic effects for all options: All the options require the delivery of the c.10,940 homes on existing and planned sites that are consistent with existing planning policies (the Urban Capacity sites). The significance of the effects on the landscape/townscape of delivering these sites will be dependent on the special qualities of the landscape/townscape associated with each of the sites. New development would provide opportunities to improve the local townscape and public realm, particularly if the site is currently a poor contributor to the character of the local area.</p> <p>Constructing new dwellings is likely to result in some adverse effects on landscapes and townscapes. The effects will be more significant once brownfield sites have been used up and houses will have to be built on greenfield sites in the Green Belt. The higher levels of growth would require increased levels of Green Belt release.</p> <p>The higher the level of housing the greater the potential there is for adverse effects on the local townscapes and landscapes, including adverse effects on the setting of the Chilterns AONB which lies close to the three main towns of Berkhamsted, Hemel Hempstead and Tring as well as to the west of Markyate.</p> <p>Development of the 'urban capacity sites' could provide the opportunity to improve local townscapes, depended to nature of the current use of the site.</p>						
<p>Generic effects for Option 1: This level of growth would require development on greenfield sites, including those in the Green Belt, which could have associated adverse effects on local landscapes, tranquillity and light pollution.</p>		<p>Generic effects for Option 2: As for Option 1 but with a greater potential for adverse effects given the higher level of development proposed.</p> <p>Compared to Option 1, additional Green Belt release would be required with associated adverse effects on local landscapes and potential erosion of green links between some existing residential areas and the countryside.</p>		<p>Generic effects for Option 3: As for Options 1 and 2 but with a greater potential for adverse effects given the higher level of development proposed.</p> <p>Compared to Options 1 and 2, additional Green Belt release would be required with associated adverse effects on local landscapes and potential erosion of green links between some existing residential areas and the countryside.</p> <p>This option would also have the greatest impact of the setting of the Chilterns AONB as it would require significant development at Tring, Berkhamsted and to the north of Hemel Hempstead, all of which are either adjacent or in close proximity to the AONB. The Option may require the development of a small numbers of sites that also fall within the AONB itself.</p> <p>As a result significant adverse effects have been identified against this objective,</p>		
Option 1a: Potential effects on the setting of the AONB from development at Berkhamsted, Hemel and Tring.	Option 1b: Potential effects on the setting of the AONB from development at Hemel.	Option 1c: Potential effects on the setting of the AONB from development at Berkhamsted,	Option 2a: Potential effects on the setting of the AONB from development at Berkhamsted, Hemel and Tring.	Option 2b: Potential effects on the setting of the AONB from development at Berkhamsted, Hemel and Tring.	Option 2c: Potential effects on the setting of the AONB and also the rural area of the Borough.	Option 3: Potential effects on the setting of the AONB from Green Belt release at Berkhamsted, Hemel, Tring and Markyate and potentially as a result of development within the AONB itself. In addition Option 3 would require some

	The limited amount of Green Belt release at Tring under this option, compared to Options 1c, 2a, 2b, 2c and 3, would limit adverse effects on the setting of the Chilterns AONB.	This option requires no Green Belt release at Tring which would limit adverse effects on the setting of the Chilterns AONB.	Tring and Markyate. Option 1c does not require any Green Belt release at Hemel.	Option 2a requires 1,600 new homes in the Green Belt at Tring. Tring is surrounded by the Chilterns AONB and therefore the setting of the AONB is likely to be adversely affected by the high level of development proposed under this option.	Option 2b requires 1,350 new homes in the Green Belt at Tring. Tring is surrounded by the Chilterns AONB and therefore the setting of the AONB is likely to be adversely affected by the high level of development proposed under this option.	Option 2c would require Green Belt release at Berkhamsted, Hemel and Tring. In addition Option 2c would require some development of sites in the small villages and the countryside. This could affect local landscape and 'villagescapes'.	development of sites in the small villages and the countryside. This could affect local landscape and 'villagescapes'.
<p>Mitigation: Amongst others the proposed Local Plan policies covering Landscape Character; The Chilterns Area of Outstanding Natural Beauty; Green Infrastructure; Public Rights of Way; Quality of Settlement and Neighbourhood Design; Quality of the Public Realm; and Height of buildings will help towards minimising the effects of new development on the local landscapes and townscapes of those areas where new development will be focused.</p> <p>In addition, masterplans and Local Plan requirements for the chosen key sites will look at mitigation and enhancement measures in greater detail (i.e. tree planting and landscaping, location of development within the site, building heights etc.) .</p>							
<p>SA10: Health and wellbeing</p>	<p>Context: Local health and wellbeing priorities within the Borough are increasing levels of physical activity in adults and subsequently reducing levels of obesity; and continuing to reduce the proportion of the population smoking.</p> <p>The Borough contains a diverse range of leisure and sports facilities, including public and private outdoor sports facilities for children and adults as well as allotments and gardens.</p> <p>Within the Dacorum countryside, there is an extensive rights of way network equating to over 360 miles, with well-publicised paths and routes including the Chilterns Country Walks and the Markyate Heath Walks as well as routes along the Grand Union Canal.</p>						
✓/x	✓/x	✓/x	✓/x	✓/x	✓/x	✓/x	✓/x
<p>Generic effects for all options: All the options require the delivery of the c.10,940 homes on existing and planned sites that are consistent with existing planning policies (the Urban Capacity sites).</p> <p>Effects on the health objective would be dependent on how the different levels of growth are delivered in terms of a variety of factors such as: the provision of new health facilities that ensure that existing services are not over-stretched; the design of developments to enable the take up of active travel modes; provision of a range of homes to meet the needs of all groups in society etc.</p> <p>An increasing population will lead to additional pressure on secondary healthcare services in the Borough. The increasing proportion of older people in the Borough's population is also likely to have put pressure on secondary healthcare needs, as they are likely to utilise healthcare services more than others.</p> <p>New open space provided through new developments, including SANGs, would help to encourage healthy recreation activities and support improvements in health and wellbeing across the Borough.</p>							

<p>In addition the Council has identified that new development would need to support moves towards increased cycling and walking. Enabling an increased take-up in these active travel modes will contribute towards benefits in health and wellbeing.</p>						
<p>Generic effects for Option 1: The number of new dwellings proposed under this option would not meet the OAN and as a result health issues related to a lack of appropriate housing could be exacerbated (e.g. through overcrowding and stress related to inadequacy of housing provision). This level of housing may also limit the number and range of new homes designed to meet the needs of the ageing population and those with disabilities. The levels of growth under this option could result in impact on existing healthcare facilities, although this would be less than for Options 2 and 3. However, delivery of the housing under this option would require c.2,950 new homes in the Green Belt and there therefore likely to be some large developments that could provide new facilities to meet the need the needs of both new and existing residents.</p>			<p>Generic effects for Option 2: This option would meet the OAN and could therefore help to reduce levels of housing related ill health and low levels of wellbeing (e.g. as a result of overcrowding and stress related to inadequacy of housing provision). Compared to Option 1 there would be a greater potential to provide the range and types of housing to meet the needs of the elderly and disabled population. The housing proposed under this option would put increased pressure on existing health care facilities when compared to Option 1. However, as with Option 1, any new neighbourhood sized developments would provide opportunities for the provision of new healthcare facilities that could help to tackle some current deficits for the existing population.</p>			<p>Generic effects for Option 3: The provision of levels of housing growth above the OAN will help to meet the housing needs of the local population and reduce issues of overcrowding and stress related to inadequacy of housing provision. Compared to Options 1 and 2 there would be a greater potential to provide the range and types of housing to meet the needs of the elderly and disabled population. The housing proposed under this option would put pressure on existing health care facilities. However if new neighbourhoods were to be created as part of this growth option there would be opportunities for the provision of new healthcare facilities that could help to tackle some current deficits for the existing population.</p>
No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.	No sub-option specific effects have been identified.
<p>Uncertainties: See SA4 Climate Change for details of the uncertainty relating to the potential for new roads to be provided as part of larger developments. Mitigation: Amongst others the proposed Local Plan policies covering Sustainable Transport; Social Infrastructure; Community care; Green Infrastructure; Leisure space provision and leisure facilities; Public Rights of Way; and Environmental protection (including lighting, noise, air quality, etc.) will help towards ensuring that the health and wellbeing of the Borough’s existing and future residents are taken into consideration when planning for new development, including through the provision of sufficient healthcare and leisure and recreation facilities, enabling the uptake of active travel modes and providing access to open spaces.</p>						
<p>SA11: Sustainable locations</p>	<p>Context: Hertfordshire’s Traffic and Transport Data Report 2016 identifies that traffic within the Borough is forecast to increase by 3.5% by 2021 from 2015 levels and by 11.2% by 2031. Mainline rail is a good travel option for Dacorum, with access to four stations: Apsley, Berkhamsted, Hemel Hempstead and Tring. There is a good level of bus services in Hemel Hempstead where the network is generally well developed and an adequate level of service in other locations. Markyate is an exception where bus transport is considered unreliable and poorly integrated with other larger local towns in the Borough. A key issue that has been identified is that bus</p>					

<p>services are not adequately linked between Hemel Hempstead rail station, Maylands and Hemel Hempstead town centre.</p> <p>The walking and cycling network generally meets current demand however there are localised issues, such as congestion on some routes putting people off using those routes. Routes to stations in particular are considered to be inadequate.</p> <p>According to the 2015 Hertfordshire County Travel Survey, 29% of work trips in Dacorum are less than 5 miles.</p> <p>The 2015 County Travel Survey also reports that cycling makes up only 1% of modal share in Dacorum (when considering total distance travelled where cycling was the main mode).</p> <p>In terms of walking to work, in Dacorum this decreased from 9.6% in 2001 to 8.9% in 2011. This decline is in line with the county and national trends.</p>						
✓/?	✓/?	x	✓/?	✓/?	✓/?	✓/?
<p>Generic effects for all options: All the options require the delivery of the c.10,940 homes on existing and planned sites that are consistent with existing planning policies (the Urban Capacity sites). The effects against this objective will be very dependent on the location of the new developments required to meet the proposed levels of housing growth, in terms of their relationship with existing services and local infrastructure.</p> <p>Growth may help to result in improvements to railway station facilities and the frequency of services, which could encourage an increased take-up of rail use over the use of the private car.</p>						
<p>Generic effects for Option 1: If this level of growth is met by relatively small scale housing developments this option could provide limited opportunities for integrating new local services and facilities into developments.</p> <p>Effects against this objective will be very dependent on the actual locations of new developments in relation to existing facilities and local infrastructure.</p>			<p>Generic effects for Option 2: The levels of development under this option could provide larger developments with increased scope for integrating new local services and facilities and increasing the viability of existing services. This would support this objective by reducing the need to travel to services.</p> <p>Nevertheless, effects against this objective will be very dependent on the actual locations of new developments in relation to existing facilities and local infrastructure.</p>		<p>Generic effects for Option 3: The number of larger developments that would need to be taken forward to deliver the number of new dwellings under this option would be more likely to incorporate a range of local facilities thereby reducing the need to travel to access everyday needs. This would support this objective by reducing the need to travel to services.</p> <p>Nevertheless, effects against this objective will be very dependent on the actual locations of new developments in relation to existing facilities and local infrastructure.</p>	
Option 1a: Concentrating the lower level of growth at the three main towns means that new Green Belt development would be located in proximity of the	Option 1b: Focusing all the new Green Belt development at Hemel means that it would be in proximity to the Borough's largest town, thereby reducing the need	Option 1c: Providing no new Green Belt development at Hemel and distributing it in locations across the Borough would increase the overall need to	Option 2a: The proposed distribution of new development in the Green Belt under Option 2a concentrates the majority of the growth at the three main towns, with	Option 2b: The proposed distribution of new development in the Green Belt under Option 2b includes all of the growth at the three main towns, meaning that new Green	Option 2c: Whilst Options 2a and 2b are relatively similar in terms of the distribution of the new development in the Green Belt, Option 2c spreads the growth across the	Option 3 requires the maximum levels of development in all six of the Borough's main settlements, although it does require some development of sites in the small villages and the countryside. Under this Option most development would be distributed in a way that would help reduce the need to travel.

	settlements with the most services, thereby reducing the need to travel.	to travel to access services.	travel to access services when compared to Options 1a and 1b.	some growth at Bovington, meaning that new Green Belt development would be located in proximity of the settlements with the most services, thereby reducing the need to travel.	Belt development would be located in proximity of the settlements with the most services, thereby reducing the need to travel.	Borough, including some development of sites in the small villages and the countryside. This distribution broadly reflects the size of the settlements in concern, but compared to Options 2a and 2b would increase the need to travel to access main services.	
<p>Mitigation: Amongst others the proposed Local Plan policies covering Distribution of Development and Sustainable Transport will help towards reducing the need to travel, through closer integration of housing, jobs and services as well as enabling and encouraging walking, cycling and the use of public transport.</p>							
SA12: Community cohesion	<p>Context: There is a shortage of primary and secondary school places in some parts of the Borough. Despite the relatively low levels of deprivation in the Borough as a whole, there are however small pockets of more deprived areas within Dacorum. The Index of Multiple Deprivation divides the Borough into 94 smaller areas called lower super output areas (LSOAs). Nine LSOAs in the Borough rank within the most deprived half of local areas nationally. In the year ending September 2015, the crime rate in Dacorum was slightly lower than average for the Hertfordshire police force area.</p>						
	✓/x	✓/x	✓/x	✓/?	✓/?	✓/?	✓/?
	<p>Generic effects for all options: All the options require the delivery of the c.10,940 homes on existing and planned sites that are consistent with existing planning policies (the Urban Capacity sites). An increasing population will lead to additional pressure on local infrastructure. However, through direct provision and through developer contributions, it also provides the opportunity to provide new infrastructure that could be of benefit to all sections of Dacorum’s community.</p>						
	<p>Generic effects for Option 1: This level of growth may provide limited opportunities for new community facilities to come forward as a result of developer contributions and could reduce the viability of existing facilities and services. This would have the greatest effect on those without access to private transport. Conversely, this level of growth would put less pressure on local infrastructure than the higher growth options. Any effects would be dependent on the context of the individual</p>	<p>Generic effects for Option 2: This level of housing growth should result in levels of developer contributions which could result in an increased provision of health, education, recreation and community facilities, as well as supporting the viability of existing services and facilities. This level of growth is likely to put pressure on local infrastructure, particularly schools, many of which are already under pressure. However, the scale of development would require the provision of new schools, which would negate this</p>	<p>Generic effects for Option 3: This level of housing growth should result in increased levels of developer contributions which could result in an increased provision of health, education, recreation and community facilities, as well as supporting the viability of existing services and facilities. This level of growth is likely to put</p>				

	<p>settlement where development is proposed, in terms of the current and future capacity of services such as schools and healthcare facilities.</p> <p>The levels of housing provision under this option would leave a shortfall in the provision of affordable housing which would not help to tackle the issues of deprivation that exist in some areas of the Borough.</p>			<p>effect and could even improve provision for the Borough as a whole.</p> <p>Any effects would be dependent on the context of the individual settlement where development is proposed, in terms of the current and future capacity of services.</p> <p>The levels of housing provision under this option, including affordable housing, would be likely to have associated benefits in terms of potential reductions in levels of deprivation and addressing inequality.</p>			<p>significant pressure on local infrastructure, particularly schools, many of which are already under pressure.</p> <p>However, the scale of development would require the provision of new infrastructure (e.g. schools), which would negate this effect and could even improve provision for the Borough as a whole.</p> <p>Any effects would be dependent on the context of the individual settlement where development is proposed, in terms of the current and future capacity of services.</p> <p>The high levels of housing provision under this option, including affordable housing, would be likely to have associated benefits in terms of potential reductions in levels of deprivation and addressing inequality – to a greater level than for Option 2.</p> <p>Under Option 3 there may be issues in terms of providing appropriate secondary school places. The advice from HCC is that the existing secondary schools in Berkhamsted and Tring may not be able to expand sufficiently to accommodate future demand, so a new secondary school to serve both towns is likely to be required. However no site has been identified for this, and there are few realistic options, as sites that may have been suitable are likely to be needed to deliver the high level of housing growth under Option 3.</p>
Option 1a The scale of new housing in the Green Belt at Hemel and B’sted	Option 1b would not require any large Green Belt developments at	Option 1c would not require any large Green Belt developments at	Option 2a requires greater levels of Green Belt release at Hemel and B’sted	Option 2b limits Green Belt release to the three main towns. It would	Option 2c would provide similar levels of Green Belt release to	Option 3 would require levels of Green Belt release at each settlement higher than any of the other options. There are no spatial sub-options to delivering the	

	<p>would result in the provision of new services that could be used by existing and new residents. The same would be the case for Tring but to a lesser extent.</p>	<p>Tring or B'sted which would mean there are no opportunities to improve infrastructure provision, although conversely there would not be the additional pressure on existing infrastructure in these towns. This option would however maximise the provision of new infrastructure at Hemel which would help to add to and update the current local infrastructure.</p>	<p>Hemel – this being the area of the Borough with the highest levels of deprivation and greatest need for new and updated infrastructure. The option requires some Green Belt development at Bovingdon, Kings Langley and Markyate. Whilst this could put pressure on existing services it would also provide opportunities for improvements to the existing infrastructure (e.g. schools, healthcare, open space).</p>	<p>than Option 1a, with subsequent additional pressures and opportunities in relation to local infrastructure. Under this option there would be a significant increase in Green Belt release at Tring compared to Option 1a (1,600 homes v. 300) which provides both pressures and opportunities in relation to local infrastructure. The requirement for some Green Belt release at Bovingdon is of a relatively small scale but nevertheless it could result in improvements to local infrastructure.</p>	<p>require increase release at Hemel, compared to Option 2a, but slightly reduce levels at B'sted and Tring – thereby putting less pressure on local infrastructure in these two towns, but also providing reduced opportunities for gains. The proposed provision of 4,150 homes in the Green Belt at Hemel would put a lot of pressure on the town's infrastructure and contribute to traffic congestion, particularly given the additional expansion within St Albans District (the Gorhambury development) on the eastern edge of Hemel.</p>	<p>Option 1c in B'sted, Tring, Bovingdon (50 more), Markyate and Kings Langley (100 more). However it requires 155 homes to be provided in the smaller villages (rural) and 3,450 at Hemel (compared to zero for Option 1c). This distribution broadly reflects the size of the settlements in concern and like the other options will both put pressure on existing services (in all areas) and provide opportunities for service and infrastructure enhancements.</p>	<p>growth under Option 3 as all the known developable sites associated with each town/village would be required to deliver the housing number. As with the other options the new development will put pressure on existing services, but on a greater scale, but at the same time could help to add to, replace and upgrade the existing local infrastructure, services and facilities.</p>
<p>Uncertainties: See SA4 Climate Change for details of the uncertainty relating to the potential new roads to be provided as part of larger developments.</p> <p>Mitigation: The proposed Local Plan policies under the 'Sustainable Development'; 'Homes and Community Facilities'; and 'Economic Prosperity' topics should ensure that new development is located in close proximity to services and facilities and/or incorporate new facilities as well as where appropriate providing contributions towards wider local infrastructure. This should help to improve community cohesion and provide Borough-wide benefits from the new developments.</p>							

SA13: Housing	<p>Context: The ‘South West Hertfordshire Strategic Housing Market Assessment’ (2016) (SHMA), found that Dacorum has an Objectively Assessed Need (OAN) for 756 dwellings to be built per annum between 2013 and 2036.</p> <p>Since the SHMA was prepared, the Government has published new household growth projections, which show an increased need for housing in Dacorum.</p> <p>A Government published consultation document ‘<i>Planning for the right homes in the right places,</i>’ (September 2017) suggests a new standard approach to calculating housing need. Under the proposed new methodology the figures for Dacorum would be 602 dwellings per annum up to September 2018 and around 1,000-1,100 dwellings per annum from September 2018 onwards, which is when the Core Strategy is more than 5 years old. There are various uncertainties concerning the Government’s consultation document, so it is not possible at present to reach a conclusion on the need for housing in Dacorum. The proposed SHMA update and conclusions from the Government on the new standardised methodology are expected to clarify the position before the new Local Plan is published.</p> <p>There are currently 5,609 households on the Council’s waiting list, with 6.3% of households considered to be overcrowded.</p> <p>At the time of the 2011 census 16.6% of the Borough’s population was aged 65 and over.</p>						
	✓/x	✓/x	✓/x	✓/✓✓	✓/✓✓	✓/✓✓	✓✓
	<p>Generic effects for all options: All the options require the delivery of the c.10,940 homes on existing and planned sites that are consistent with existing planning policies (the Urban Capacity sites).</p> <p>The greater the level of housing provided the greater will be the ability to meet the needs for the number, range and type of housing to meet the needs of all residents and communities in the Borough.</p>						
	<p>Generic effects for Option 1: Whilst the provision of 602 dpa would be a c.40% increase over the level of new housing required by the adopted Core Strategy (an average of 430 dpa over the plan period) and a c.49% increase over the average number of homes actually built in the Borough since 2006 (404 dpa), this level of housing (602 dpa) would not meet the objectively assessed need of 756 dpa. This would have implications for the supply of affordable housing and therefore a minor negative effect has been identified against this SA objective.</p>			<p>Generic effects for Option 2: The provision of 756 dpa would meet the objectively assessed need identified for the Borough and therefore a positive effect has been identified in relation to this SA objective. This effect could be significant positive, but that may depend on the outcome of the process to update the Objectively Assessed Need that will take place before the Local Plan is published.</p> <p>This option would be able to more closely meet the Borough’s needs for affordable housing when compared to the levels of housing proposed under Option 1.</p>		<p>Generic effects for Option 3: The provision of 1,000-1,100 dpa would exceed the objectively assessed need identified by the SHMA and would provide additional affordable housing and therefore a significant positive effect has been identified in relation to this SA objective.</p> <p>This option would be able to more closely meet the Borough’s needs for affordable housing when compared to the levels of housing proposed under Option 1 and Option 2.</p>	
Option 1a does not require any Green Belt release in Bovington, Kings Langley or Markyate which may cause issues in terms of not meeting local	Option 1b does not include any Green Belt release in B’sted, Tring, Bovington, Kings Langley or Markyate which may cause issues in terms of not	Option 1c does not include any Green Belt release at Hemel which may cause issues in terms of not meeting local housing needs in the Borough’s	Option 2a does not require any Green Belt release in Kings Langley or Markyate which may cause issues in terms of not meeting local housing needs in	Option 2b does not require any Green Belt release in Bovington, Kings Langley or Markyate which may cause issues in terms of not meeting local	Option 2c would help to meet local housing needs across all areas of the Borough.	Option 3 would help to meet local housing needs across all areas of the Borough.	

	housing needs in these large villages.	meeting local housing needs in these towns/villages.	largest town.	these large villages.	housing needs in these large villages.		
<p>Mitigation: The proposed Local Plan policies under the ‘Homes and Community Facilities’ topic should ensure that the number, type and range of housing is provided, so far as is viable, in order to meet the identified needs of the Borough.</p>							
<p>SA14: Sustainable prosperity</p>	<p>Context: The main employment sectors in Dacorum are retail; information and communication; professional, scientific and technical; business, administration and support services; and education.</p> <p>The Issues and Options Paper proposes to remove land from the Green Belt at south west Kings Langley, east of the A41 at Two Waters, and Dunsley Farm in Tring in order to meet the future need for additional employment land. In addition there is the potential for the provision of new employment land at East Hemel Hempstead in St Albans District.</p> <p>The area has working population of 83,600, with 83.4% of working age residents being economically active.</p> <p>Dacorum has approximately 7,600 enterprises. Maintaining a strong employment base is essential for the future prosperity of the area.</p>						
	✓	✓	✓	✓	✓	✓	✓
	<p>Generic effects for all options: All the options require the delivery of the c.10,940 homes on existing and planned sites that are consistent with existing planning policies (the Urban Capacity sites).</p> <p>Any increase in housing numbers will help to support the vitality and viability of the local economy through increased spending. The greater the number of houses the greater that this effect will be. There would also be economic benefits resulting from the construction of the housing.</p> <p>The new employment designations that are proposed will provide employment opportunities to provide a balance between homes and jobs on both a Borough and SW Herts level.</p>						
	<p>Generic effects for Option 1: The housing growth will provide an increased population to support the vitality of the local economy.</p>			<p>Generic effects for Option 2: As for Option 1 but with a greater potential for positive effects given the higher level of development proposed.</p>		<p>Generic effects for Option 3: As for Options 1 and 2 but with a greater potential for positive effects given the higher level of development proposed.</p>	
	Option 1a does not require any Green Belt release in Bovingdon, Kings Langley or Markyate which may cause issues in relation to helping to maintain the viability of local services and businesses (e.g.	Option 1b does not include any Green Belt release in B’sted, Tring, Bovingdon, Kings Langley or Markyate which may cause issues in relation to helping to maintain the viability of local	Option 1c requires some Green Belt development in all the main settlements in the Borough which will help to support the vitality and viability of the local economy in	Option 2a does not require any Green Belt release in Kings Langley or Markyate which may cause issues in relation to helping to maintain the viability of local services and businesses.	Option 2b does not require any Green Belt release in Bovingdon, Kings Langley or Markyate which may cause issues in relation to helping to maintain the viability of local services and businesses (e.g.	Option 2c requires some Green Belt development in all the main settlements in the Borough which will help to support the vitality and viability of the local economy in	The Green Belt releases for housing in all areas of the Borough that are required to deliver Option 3 would help to support the local economy in all the Borough’s towns and large villages. This would help to improve viability of local services and businesses.

	shops, pubs, restaurants etc.).	services and businesses.	each settlement.		shops, pubs, restaurants etc.).	each settlement.	
<p>Uncertainties: See SA4 Climate Change for details of the uncertainty relating to the potential new roads to be provided as part of larger developments.</p> <p>Mitigation: The proposed Local Plan policies under the ‘Economic Prosperity’ and ‘Sustainable Development’ topics should help to ensure that the policy framework is in place to provide the employment base to meet the needs of an increased and growing population, as well as locating new economic development in sustainable locations within easy reach of new housing.</p>							
SA15: Employment and skills	<p>Context: The Hertfordshire County Travel Survey 2015 reported that 37% of Dacorum residents work within the Borough, with 23% working in other districts within Hertfordshire, 23% working in London and 15% working in an adjacent county.</p> <p>Whilst the Borough has a relatively low level of out-commuting when compared to some other SW Herts local authorities it will be necessary to ensure local residents have employment opportunities and access to training by encouraging local provision of and access to jobs, enabling the provision of new and enhanced educational facilities and providing training that will help people acquire the skills needed to find and remain in employment.</p> <p>The SW Hertfordshire Economic Study (2016) estimated that jobs (measured as full time equivalent roles) in Dacorum will increase by 10,900 jobs between 2013 & 2036. Around 58% of the additional jobs needed in Dacorum over this 23 year period are predicted to be in the office, industrial and distribution roles, which amounts to 5,400 full time equivalent jobs.</p> <p>The Issues and Options Paper proposes to remove land from the Green Belt at south west Kings Langley, east of the A41 at Two Waters, and Dunsley Farm in Tring in order to meet the future need for additional employment land. In addition there is the potential for the provision of new employment land at East Hemel Hempstead in St Albans District.</p>						
	?	?	?	✓	✓	✓	✓
	<p>Generic effects for all options: All the options require the delivery of the c.10,940 homes on existing and planned sites that are consistent with existing planning policies (the Urban Capacity sites).</p> <p>The provision of new homes could result in increased levels of out-commuting, but this will be dependent on the number, type and location of new jobs that are created alongside housing through the delivery of the Local Plan strategy.</p> <p>The new employment designations that are proposed will provide employment opportunities to provide a balance between homes and jobs on both a Borough and SW Herts level.</p>						
	<p>Generic effects for Option 1: Under this level of housing growth DBC consider that there is no urgent need for new employment allocations – although the provision of some additional employment land at Two Waters, Hemel Hempstead, Dunsley Farm, Tring and the safeguarding of land to the south of Kings Langley would help to ensure a prosperous economy in the future.</p> <p>The level of new dwellings provided under this option may limit the opportunities for people to stay living in the area and benefit from the planned expansion of jobs in the Borough.</p>		<p>Generic effects for Option 2: Under this level of housing growth DBC consider that there is some need for new employment allocations – with the provision of some additional employment land at Two Waters, Hemel Hempstead, Dunsley Farm, Tring and the safeguarding of land to the south of Kings Langley helping to ensure a prosperous economy in the future.</p> <p>This level of housing growth, which meets the objectively assessed need (OAN), should enable people to remain living in the area and therefore have improved access to newly created employment opportunities.</p>		<p>Generic effects for Option 3: Under this level of housing growth DBC consider that there is a need for new employment allocations – with the provision of some additional employment land at Two Waters, Hemel Hempstead, Dunsley Farm, Tring and the safeguarding of land to the south of Kings Langley helping to ensure a prosperous economy in the future.</p> <p>As for Option 2 but with a greater</p>		

							potential for positive effects given the higher level of housing development proposed.
	<p>Option 1a does not require any Green Belt release in Kings Langley which could be a location for future employment opportunities. This would therefore miss the opportunity for providing homes close to new job creation. Green Belt release is planned for the other areas of potential employment growth (Hemel and Tring).</p>	<p>Option 1b does not require any Green Belt release in Kings Langley or Tring which could both be locations for future employment opportunities. This would therefore miss the opportunity for providing homes close to new job creation. Green Belt release is planned for the areas of potential employment growth in and around Hemel (e.g. Maylands and Two Waters).</p>	<p>Option 1c does not require any Green Belt release at Hemel which would mean that new large developments in the Borough would not be located near to the main current and future employment sites in and around Hemel. Green Belt release is planned for the areas of potential employment growth at Kings Langley and Tring.</p>	<p>Option 2a does not require any Green Belt release in Kings Langley which could be a location for future employment opportunities. This would therefore miss the opportunity for providing homes close to new job creation. Green Belt release is planned for the other areas of potential employment growth (Hemel and Tring).</p>	<p>Option 2b does not require any Green Belt release in Kings Langley which could be a location for future employment opportunities. This would therefore miss the opportunity for providing homes close to new job creation. Green Belt release is planned for the other areas of potential employment growth (Hemel and Tring).</p>	<p>Option 2c requires some Green Belt release for housing at the settlements which could also see some new employment opportunities (Hemel, Kings Langley and Tring).</p>	<p>Option 3 requires some Green Belt release for housing at the settlements which could also see some new employment opportunities (Hemel, Kings Langley and Tring).</p>
<p>Mitigation: The proposed Local Plan policies under the ‘Economic Prosperity’ and ‘Homes and Community Facilities’ topics should help to provide the number and range of job types and education opportunities in order to meet the identified needs of the Borough.</p>							