

**SUSTAINABILITY APPRAISAL (SA)
OF THE EAST HERTS DISTRICT PLAN**

**INTERIM SA REPORT (DRAFT FOR PANEL)
JANUARY 2014**

Prepared by



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INTRODUCTION

1 BACKGROUND

- 1.1.1 URS is commissioned to undertake Sustainability Appraisal (SA) in support of the emerging East Herts Local Plan. SA is a mechanism for considering and communicating the likely effects of a draft plan, and alternatives, in terms of sustainability issues, with a view to avoiding and mitigating adverse effects and maximising positives. SA of Local Plans is legally required.¹

2 SA EXPLAINED

- 2.1.1 It is a requirement that SA is undertaken in-line with the procedures prescribed by the Environmental Assessment of Plans and Programmes Regulations 2004, which were prepared in order to transpose into national law the EU Strategic Environmental Assessment (SEA) Directive.²
- 2.1.2 The Regulations require that a report is published for consultation alongside the draft plan³ that *'identifies, describes and evaluates' the likely significant effects of implementing 'the plan, and reasonable alternatives'*. *The report must then be taken into account, alongside consultation responses, when finalising the plan.*
- 2.1.3 In-line with the Regulations the report - which for the purposes of SA is known as **the 'SA Report'** – must essentially answer **four questions**:
1. What's the scope of the SA?
 2. What has Plan-making / SA involved up to this point?
 - Preparation of the draft plan must have been informed by earlier SA. In particular, 'reasonable alternatives' must have been appraised.
 3. What are the appraisal findings at this current stage?
 - i.e. in relation to the draft plan.
 4. What happens next?

3 THIS INTERIM SA REPORT

- 3.1.1 At the current stage of plan-making the Council is consulting on 'Preferred Options'. This Interim SA Report is produced with the intention of informing the consultation and subsequent preparation of the draft (proposed submission) plan.

¹ Since provision was made through the Planning and Compulsory Purchase Act 2004 it has been understood that local planning authorities must carry out a process of Sustainability Appraisal alongside plan-making. The centrality of SA to Local Plan-making is emphasised in the National Planning Policy Framework (2012).

² Directive 2001/42/EC

³ For Local Plans, 'the draft plan' is taken to be the 'proposed submission' version that is published in-line with Regulation 19 of the Town and country Planning (Local Planning) Regulations 2012.

Structure of this Interim SA Report

- 3.1.2 Despite this being an 'Interim' SA Report (i.e. a document that does not need to provide the information legally required of the SA Report) it is nonetheless helpful to structure this report broadly according to the four questions listed above.
- 3.1.3 Specifically, in the case of this report:
- Part 1 – Presents a brief summary of the SA scope
 - Part 2 – Presents information regarding alternatives appraisal
 - Part 3 – Presents the appraisal of preferred options (i.e. the current version of the draft plan)
 - Part 4 – Discusses next steps.

N.B. This is a draft version of the Interim SA Report. This version is prepared for the benefit of elected members. The final version will be that which is published for consultation

If changes are made to the preferred options document between now (i.e. the time of elected members being asked to consider the plan) and the time of the plan being published for consultation, then this Interim SA Report will be updated. Specifically, if changes are made to the plan then 'Part 3' of this report (which presents an appraisal of the draft plan document) will be updated as necessary. It may also be appropriate to update 'Part 2' (which answers the question "What has Plan-making / SA involved up to this point?") if there is a 'story to tell' about the reasons behind the changes.

PART 1: WHAT'S THE SCOPE OF THE SA?

4 INTRODUCTION (TO PART 1)

4.1.1 This is Part 1 of the Interim SA Report, the aim of which is to introduce the reader to the scope of the SA. In particular, this Part of the SA Report answers the series of questions below.

- What's the Plan seeking to achieve?
- What's the sustainability context?
- What's the sustainability baseline?
- What are the key sustainability issues and objectives?
 - A key outcome of scoping, the list of issues and objectives provides a methodological 'framework' for appraisal.

4.2 Topics

4.2.1 'Context', 'baseline' and 'key issues/objectives' are all discussed under the following series of sustainability 'topic' headings:

- | | |
|---|------------------------|
| • Air quality | • Historic environment |
| • Biodiversity and green infrastructure | • Housing |
| • Climate change | • Land |
| • Community and wellbeing | • Landscape |
| • Economy and employment | • Transport |
| | • Water |

4.2.2 These topics were used to structure the 2010 SA Scoping Report.⁴ The Scoping Report also included six 'spatial' topic chapters, which focused on reviewing the context, baseline and key issues/objectives specific to areas within East Herts. It is now felt that this approach is not appropriate, i.e. it is better to scope (and appraise) under 'thematic' topics only (with spatially specific matters considered as appropriate under the thematic headings).

4.3 Consultation on the scope

4.3.1 The Regulations require that: 'When deciding on the scope and level of detail of the information that must be included in the report, the responsible authority shall consult the consultation bodies'. In England, the consultation bodies are Natural England, The Environment Agency and English Heritage.⁵ As such, these authorities were consulted on the SA Scoping Report in 2010.

4.3.2 The discussion below essentially seeks to summarise and update the scope as agreed through consultation in 2010.

⁴ See <http://www.eastherts.gov.uk/index.jsp?articleid=15565>

⁵ In-line with Article 6(3) of the SEA Directive, these consultation bodies were selected because 'by reason of their specific environmental responsibilities, [they] are likely to be concerned by the environmental effects of implementing plans and programme'.

5 WHAT IS THE PLAN SEEKING TO ACHIEVE?

5.1.1 The District Plan, once adopted, will present a spatial strategy for the District up to 2031. It will determine the distribution of various kinds of development and will present a policy framework for determining planning applications. The objectives of the plan are inline with the National Planning Policy Framework (NPPF), which sets out a suit of National policies that Local Plans must adhere to. The Local Plan is also developed in-light of the plans of neighbouring authorities (adopted and emerging). This is important given the 'Duty to Cooperate' established by the Localism Act 2011. There is a particular need for East Herts to cooperate closely with Stevenage, Welwyn Hatfield, Broxbourne, Harlow, Epping Forest and Uttlesford Councils.

5.1.2 The nine 'strategic objectives' are:

1. To mitigate the effects of **climate change** by reducing carbon dioxide emissions, supporting decentralised, low carbon and renewable energy and reducing the risk of flooding.
2. To encourage safe and vibrant mixed **communities** that provide for the needs of all East Herts residents including young, old, disabled and disadvantaged.
3. To balance the **housing** market by delivering a mix of market, low cost, and affordable homes and accommodating the housing needs of an ageing population.
4. To protect the **countryside** from inappropriate development and enhance the historic character of East Herts' market towns, villages, hamlets and landscape promoting good design that creates a distinctive sense of place.
5. To foster **entrepreneurial endeavour** through **educational attainment** and encourage small and medium enterprises through maximising existing employment opportunities and clusters and supporting rural diversification.
6. To improve **access** opportunities, minimise the **need to travel**, and encourage necessary **journeys** to be made by sustainable means to ease congestion and help reduce East Herts' carbon footprint.
7. To meet the needs of all of East Herts' communities by maintaining and improving existing **facilities** and providing new facilities including for arts, culture, community, leisure, entertainment, recreation, faith and health.
8. To reduce **water** consumption, increase **biodiversity** and protect and enhance the quality of existing **environmental assets** by creating new green spaces and networks of green space for both recreation and wildlife.
9. To ensure that development occurs in parallel with provision of the necessary **infrastructure**.

What's the plan not trying to achieve?

5.1.3 It is important to emphasise that the plan will be strategic in nature. Even the allocation of sites should be considered a strategic undertaking, i.e. a process that omits consideration of some detailed issues in the knowledge that these can be addressed further down the line (through the planning application process). The strategic nature of the plan is reflected in the scope of the SA.

6 WHAT'S THE SUSTAINABILITY 'CONTEXT'?

6.1 Introduction

6.1.1 An important step when seeking to establish the appropriate scope of an SA involves reviewing sustainability context messages in relation to:

- Broad problems / issues; and
- Objectives, i.e. 'things that are aimed at or sought'.

6.1.2 Messages from the review are presented below under the topic headings introduced above.

6.2 Air quality

6.2.1 The EU Thematic Strategy on Air Pollution⁶ aims to cut the annual number of premature deaths from air pollution-related diseases by almost 40% by 2020 (using 2000 as the base year), as well as reducing the area of forests and other ecosystems suffering damage.

6.2.2 The National Planning Policy Framework (NPPF)⁷ identifies that there is a need to: prevent *"both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability"*. The NPPF identifies that *"Planning policies should sustain compliance with and contribute towards EU limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and the cumulative impacts on air quality from individual sites in local areas"*.

6.2.3 The Air Quality Strategy for England, Scotland, Wales and Northern Ireland⁸ sets health-based objectives for nine main air pollutants. Performance against these objectives is monitored where people are regularly present and might be exposed to air pollution.

6.3 Biodiversity and green infrastructure

6.3.1 The EU Biodiversity Strategy⁹ (May 2011) established a Europe-wide target to *"halt the loss of biodiversity and the degradation of ecosystem services in the EU by 2020"*.

⁶ Commission of the European Communities (2005) Thematic Strategy on air pollution [online] available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2005:0446:FIN:EN:PDF> (accessed 07/2013)

⁷ DCLG (2012) National Planning Policy Framework [online] available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

⁸ Defra (2007) Air Quality Strategy for England, Scotland, Wales and Northern Ireland [online] available at: <http://www.defra.gov.uk/environment/quality/air/air-quality/approach/> (accessed 07/2013)

⁹ European Commission (2011) Our life insurance, our natural capital: an EU biodiversity strategy to 2020 [online] available at: http://ec.europa.eu/environment/nature/biodiversity/comm2006/pdf/2020/1_EN_ACT_part1_v7%5b1%5d.pdf (accessed 07/2013)

- 6.3.2 Key messages from the National Planning Policy Framework (NPPF) include -
- Contribute to the Government's commitment to halt the overall decline in biodiversity by minimising impacts and achieving net gains in biodiversity wherever possible.
 - Promote the 'preservation, restoration and recreation of priority habitats, ecological networks' and the 'protection and recovery of priority species'. Plan for biodiversity at a landscape-scale across local authority boundaries.
 - Set policies for the protection of internationally, nationally and locally designated sites, giving weight to their importance individually and a part of a wider network.
 - Take account of the effects of climate change in the long term. Adopt proactive strategies to adaptation including in terms of green infrastructure.
 - Green infrastructure is: 'a network of multi-functional green space, urban and rural, which is capable of delivering a wide range of environmental and quality of life benefits for local communities'.
 - Local planning authorities should plan positively to enhance the beneficial use of the Green Belt, notably to 'retain and enhance landscapes, visual amenity and biodiversity'.

- 6.3.3 The Wildlife Trusts and TCPA largely endorse and amplify the messages within the NPPF:
- There is a need to focus on the conservation of biodiversity over large areas of land (i.e. at the landscape scale) where habitat patches that are now fragmented would once have functioned more as an interconnected whole. There is a need to protect and maximise the value of areas already rich in wildlife; expand, buffer, and create connections and stepping stones between these areas; and make the wider landscape more permeable to wildlife.¹⁰
 - New development should incorporate green space consisting of a 'network of well-managed, high-quality green/open spaces linked to the wider countryside'. These spaces should be of a range of types and be multifunctional, for instance as areas that can be used for walking and cycling, recreation and play, supporting of wildlife, or forming an element of an urban cooling and flood management.¹¹

6.4 Climate change

- 6.4.1 Key messages from the National Planning Policy Framework (NPPF) include -
- A 'core planning principle' is to help transition to a low carbon future in a changing climate

¹⁰The Wildlife Trusts (2010) A Living Landscape: play your part in nature's recovery [online] available at: <http://www.wildlifetrusts.org/alivinglandscape> (accessed 07/2013)

¹¹TCPA (2012) Creating garden cities and suburbs today [online] available at: http://www.tcpa.org.uk/data/files/Creating_Garden_Cities_and_Suburbs_Today.pdf (accessed 07/2013)

- Planning has a key role in securing radical reductions in Greenhouse Gas (GHG) and helping to meet the targets set out in the Climate Change Act 2008¹². Planning policy should support:
 - new development in locations and ways which reduce GHG emissions;
 - the promotion of renewable energy technologies and considering identifying suitable areas for their construction; and
 - transport solutions that support GHG reductions.

6.4.2 In the guidance document “*How local authorities can reduce emissions and manage climate risk*”¹³, planning functions are described as being a ‘key lever in reducing emissions and adapting localities to a changing climate’, with it considered particularly important to:

- Enforce energy efficiency standards in new buildings and extensions;
- Reduce transport emissions by concentrating new developments in existing cities and large towns and/or ensuring they are well served by public transport; and
- Work with developers to make renewable energy projects acceptable to communities.

6.4.3 With regards to low-carbon district heating networks, the DECC report “The future of heating”¹⁴ points out that around half (46%) of the final energy consumed in the UK is used to provide heat, contributing roughly a third of the nation’s greenhouse gas emissions. Renewable heat currently represents 1% of heat generation in the UK. The Government’s vision is of: *‘buildings benefiting from a combination of renewable heat in individual buildings, particularly heat pumps, and **heat networks distributing low carbon heat to whole communities**....’* (our emphasis).

6.4.4 In terms of **climate change adaptation**, the NPPF is clear that planning authorities should take account of the long term effects of climate change and ‘adopt proactive strategies’ to adaptation, with new developments planned to avoid increased vulnerability to climate change impacts.

¹² The Climate Change Act 2008 sets targets for greenhouse gas (GHG) emission reductions through action in the UK of at least 80% by 2050, and reductions in CO2 emissions of at least 26% by 2020, against a 1990 baseline.

¹³ Committee on Climate Change (2012) How local authorities can reduce emissions and manage climate risk [online] available at:

http://hmccc.s3.amazonaws.com/Local%20Authorites/1584_CCC_LA%20Report_bookmarked_1b.pdf (accessed 11/2012)

¹⁴ DECC (2012) The Future of Heating: A strategic framework for low carbon heat in the UK [online] available at: <http://www.decc.gov.uk/assets/decc/11/meeting-energy-demand/heat/4805-future-heating-strategic-framework.pdf> (accessed 11/2012)

6.4.5 The National Adaptation Programme (NAP)¹⁵ objectives cover 4 main areas: Increasing awareness; Increasing resilience to current extremes; Taking timely action for long-lead time measures; and Addressing major evidence gaps. Objective 2 (of 31) is to: *Provide a clear local planning framework to enable all participants in the planning system to deliver sustainable new development, including infrastructure, that minimises vulnerability and provides resilience to the impacts of climate change.*

6.4.6 Box 6.1 looks at the policy context in relation to flood risk.

Box .6.1: Flood risk context

The NPPF states development should be directed away from areas at highest risk from flooding, and should “*not to be allocated if there are reasonably available sites appropriate for the proposed development in areas with a lower probability of flooding*”. Where development is necessary, it should be made safe without increasing risk elsewhere.

New developments should be planned so that they avoid increased vulnerability to climate change impacts. Where new development is vulnerable this should be managed through adaptation measures including the planning of green infrastructure.

The Flood and Water Management Act¹⁶ sets out the following regarding flood risk management:

- Incorporating greater resilience measures into the design of new buildings, and retro-fitting at risk properties (including historic buildings);
- Utilising the environment, such as management of the land to reduce runoff and harnessing the ability of wetlands to store water; and
- Identifying areas suitable for inundation and water storage.

6.5 Community and wellbeing

6.5.1 A ‘core planning principle’ of the National Planning Policy Framework⁸ (NPPF) is to ‘take account of and support local strategies to improve health, social and cultural wellbeing for all’ and support vibrant and healthy communities. The NPPF states that planning for transport and travel will have an important role in ‘contributing to wider sustainability and **health** objectives’.

¹⁵ Defra, 2013. National Adaptation Programme [online] available at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/209866/pb13942-nap-20130701.pdf

¹⁶ Flood and Water Management Act (2010) [online] at: <http://www.legislation.gov.uk/ukpga/2010/29/contents> (accessed 08/12)

- 6.5.2 There is “*overwhelming evidence that health and environmental inequalities are inexorably linked and that poor environments contribute significantly to poor health and health inequalities*”¹⁷. To ensure that the built environment promotes health and reduces inequalities for all local populations there is a need to:
- fully integrate the planning, transport, housing, environmental and health systems to address the social determinants of health in each locality;
 - prioritise policies that both reduce health inequalities and mitigate climate change including by improving active travel and delivering good quality green space; and
 - support locally developed and evidence-based community regeneration programmes that remove barriers to community participation and action; and reduce social isolation.
- 6.5.3 New development should create **safe and accessible environments** where crime and disorder, and the fear of crime, do not undermine quality of life or community cohesion. Places should contain clear and legible pedestrian routes, and high quality public spaces, which encourage the active and continual use of public areas. In terms of road safety, plans should create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter and where appropriate establishing home zones.⁵
- 6.5.4 Organisations involved in urban planning will need to adjust to an older population and will have an important role to play in preventing the social isolation of **older citizens**. There will be 51% more people aged 65 and over and 101% more people aged 85 and over in England in 2030 compared to 2010; and a 90% increase in people with moderate or severe need for social care.¹⁸
- 6.5.5 **Travellers** should be treated in a fair and equal manner that facilitates their traditional and nomadic way of life, whilst also respecting the interest of the settled community, through promoting more private traveller site provision, whilst recognising that there will be those that cannot afford private sites; enabling the provision of suitable accommodation from which travellers can access education, health, welfare and employment infrastructure; and having due regard for the protection of local amenity and environment.¹⁹

¹⁷ The Marmot Review (2011) The Marmot Review: Implications for Spatial Planning [online] available at: <http://www.nice.org.uk/nicemedia/live/12111/53895/53895.pdf> accessed 08/2012)

¹⁸ Select Committee on Public Service and Demographic Change (2013) Ready for Ageing? [online] available at: <http://www.parliament.uk/business/committees/committees-a-z/lords-select/public-services-committee/report-ready-for-ageing/> (accessed 07/2013)

¹⁹ DCLG (2012) Planning policy for traveller sites [online] available at: <http://www.communities.gov.uk/documents/planningandbuilding/pdf/2113371.pdf> (accessed 08/2012)

6.6 Economy and employment

- 6.6.1 Key messages from the National Planning Policy Framework (NPPF) include -
- The planning system can make a contribution to building a strong, responsive economy by ‘ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation; and by identifying and coordinating development requirements, including the provision of infrastructure’.
 - There is a need to capitalise on ‘inherent strengths’, and to meet the ‘twin challenges of global competition and of a low carbon future’.
 - There is a need to support emerging business sectors, including positively planning for ‘clusters or networks of knowledge driven, creative or high technology industries’.
 - Local Plans should support business and enterprise in **rural areas** and promote the development and diversification of agricultural and other land-based rural businesses.
 - The improvement of transport links and the provision of adequate digital infrastructure can facilitate the ‘significant untapped potential’ of rural areas to contribute to economic growth and employment.²⁰
- 6.6.2 Specific examples of areas where it makes sense for Government intervention to tackle market failures include: investment in infrastructure; tackling barriers such as transport congestion and poor connections; other support to areas facing long term growth challenges where this can help them manage their transition to growth industries; and strategic intervention where it can stimulate private sector investment in new green technology in strategic locations.²¹
- 6.6.3 In order to revitalise **town centres and high streets** it is necessary for Local Authorities to re-imagine these places, ensuring that they offer something new and different that neither out-of-town shopping centres nor the internet can offer, rather than simply relying on retail provision.²² Also, lower order retail and service facilities, which provide neighbourhood level provision, can provide economic resilience, act as a ‘hub’ for local communities, and play an important role in the shopping hierarchy because of their accessibility.²³

²⁰ Federation of Small Businesses (2012) The Missing Links - Revitalising our rural economy [online] available at: http://www.fsb.org.uk/policy/assets/rural_report_web_final_proof.pdf (accessed 08/2012)

²¹ BIS (2010) Local Growth White Paper [online] available at <http://www.bis.gov.uk/assets/BISCore/economic-development/docs/L/cm7961-local-growth-white-paper.pdf>

²² High streets at the heart of our communities: The Government’s response to the Mary Portas Review [online] available at: <http://www.communities.gov.uk/publications/regeneration/portasreviewresponse> (accessed 08/2012)

²³ DCLG (2012) Parades of shops: towards an understanding of performance and prospects [online] available at: <http://www.communities.gov.uk/documents/regeneration/pdf/2156925.pdf> (accessed 08/2012)

6.7 Historic environment

6.7.1 The National Planning Policy Framework (NPPF) states that local planning authorities should set out strategic policies to deliver the conservation and enhancement of the natural and historic environment, including landscape. The NPPF goes on to say that Local Plans should present a 'positive strategy' for the 'conservation and enjoyment of the historic environment', including those heritage assets that are most at risk. Assets should be recognised as being an 'irreplaceable resource' that should be conserved in a 'manner appropriate to their significance', taking account of 'the wider social, cultural, economic and environmental benefits' that conservation can bring, whilst also recognising the positive contribution new development can make to local character and distinctiveness.

6.8 Housing

- 6.8.1 Key messages from the National Planning Policy Framework (NPPF) include -
- To 'boost significantly the supply of housing', local planning authorities should meet the 'full, objectively assessed need for market and affordable housing' in their area. They should prepare a Strategic Housing Market Assessment to assess their full housing needs. The Strategic Housing Market Assessment should identify the scale and mix of housing and the range of tenures that the local population is likely to need over the plan period.
 - With a view to creating 'sustainable, inclusive and mixed communities' authorities should ensure provision of affordable housing onsite, or externally where robustly justified.
 - Plans for housing mix should be based upon 'current and future demographic trends, market trends and the needs of different groups in the community'.
 - Larger developments are sometimes the best means of achieving a supply of new homes, with these to be developed in accordance with the 'principles of Garden Cities'.
- 6.8.2 The Joseph Rowntree Foundation *International Review of Land Supply and Planning Systems*²⁴ explores whether policies and mechanisms that work well in other countries might be introduced or adapted to help unlock land supply and therefore new housing delivery in the UK. Despite record house prices in the early 2000s the supply of new homes did not increase significantly. This lack of responsiveness to increases in house prices contributes further to affordability problems. The global financial crisis and resultant recession(s) has only worsened the supply situation. The consequences of housing market volatility and shortage are increasingly serious.

²⁴ Joseph Rowntree Foundation (2013) *International Review of Land Supply and Planning Systems* [online] available at: <http://www.jrf.org.uk/sites/files/jrf/land-supply-planning-full.pdf> (accessed 04/2013)

6.8.3 The housing market is delivering much less specialist housing for older people than is needed. Central and local government, housing associations and house builders need urgently to plan how to ensure that the housing needs of the older population are better addressed and to give as much priority to promoting an adequate market and social housing for older people as is given to housing for younger people.²⁵

6.9 Land

6.9.1 Key messages from the National Planning Policy Framework (NPPF) include -

- Protect and enhance soils.
- Prevent new or existing development from being ‘adversely affected’ by the presence of ‘unacceptable levels’ of soil pollution or land instability and be willing to remediate and mitigate ‘despoiled, degraded, derelict, contaminated and unstable land’.
- The value of best and most versatile agricultural land should also be taken into account.

6.9.2 In *Safeguarding our Soils: A strategy for England*²⁶, a vision is set out for the future of soils in the country. An element of this vision is the condition of soils in urban areas, which are to be ‘sufficiently valued for the ecosystem services they provide and given appropriate weight in the planning system’. That planning decisions take sufficient account of soil quality is a concern of the report, in particular in cases where ‘significant areas of the best and most versatile agricultural land are involved’. Preventing the pollution of soils and addressing the historic legacy of contaminated land is another element of the reports vision.

6.9.3 In terms of **Green Belt** boundaries, once established these should only be altered in exceptional circumstances. At that time, authorities should consider boundaries having regard to their intended permanence in the long term.

6.10 Landscape

6.10.1 The National Planning Policy Framework (NPPF) states that local planning authorities should set out strategic policies to deliver the conservation and enhancement of the natural and historic environment, including landscape.

6.10.2 Local Authorities should adopt policies and measures for the protection, management and planning of all landscapes, whether outstanding or ordinary, that determine the quality of people’s living environment.²⁷

²⁵ Select Committee on Public Service and Demographic Change (2013) Ready for Ageing? [online] available at: <http://www.parliament.uk/business/committees/committees-a-z/lords-select/public-services-committee/report-ready-for-ageing/> [accessed 15/03/2012]

²⁶ Defra (2009) Safeguarding our Soils: A strategy for England [online] available at: <http://archive.defra.gov.uk/environment/quality/land/soil/documents/soil-strategy.pdf> (accessed 11/2012)

²⁷ Council of Europe (2000) The European Landscape Convention [online] available at: <http://conventions.coe.int/Treaty/en/Treaties/Html/176.htm> (accessed 08/2012)

6.10.3 The NPPF attaches great importance to the **design** of the built environment. It explains how well designed development should improve the quality of the area over its lifetime, not just in the short term. Good architecture and landscaping are important, with the use of design codes contributing to the delivery of high quality outcomes. Design should reinforce local distinctiveness and address the connections between people and places.

6.11 Transport

- 6.11.1 Key messages from the National Planning Policy Framework (NPPF) include -
- To minimise journey lengths for employment, shopping, leisure and other activities, planning policies should aim for 'a balance of land uses'. Wherever practical, key facilities should be located within walking distance of most properties.
 - The transport system needs to be balanced in favour of sustainable transport modes (including walking, cycling and public transport), giving people a real choice about how they travel. Encouragement should be given to solutions which support reductions in greenhouse gas emissions and reduce congestion.
 - Planning for transport and travel will have an important role in 'contributing to wider sustainability and health objectives'.
- 6.11.2 Other organisations amplify the messages from the NPPF:
- The local transport network should support economic growth by providing a safe and efficient transport network, and to manage traffic to improve journey time reliability, reduce emissions and ensure the sustainable movement of people and goods.²⁸
 - Higher levels of walking and cycling could reduce congestion, improve local environmental quality, improve personal health and reduce transport-related CO₂ emissions²⁹. Plans should ensure that strategic policies support and encourage both walking and cycling.³⁰
- 6.11.3 It should also be noted that Hertfordshire County Council is in the process of developing an Inter Urban Route Strategy, as a daughter document to the adopted Local Transport Plan. This covers key corridors linking urban centres. It will inform the development strategy and may help address existing deficiencies e.g. east-west travel.

²⁸ Hampshire County Council (2012) Local Transport Plan [online] available at: <http://www3.hants.gov.uk/transport/local-transport-plan.htm> [accessed 18/03/2013]

²⁹ Lancaster University, University of Leeds & Oxford Brookes University (2011) Understanding Walking and Cycling: Summary of Key Findings and Recommendations [online] available at: http://www.its.leeds.ac.uk/fileadmin/user_upload/UWCRptSept2011.pdf (accessed 08/2012)

³⁰ National Institute for Health and Care Excellence (2012) Walking and cycling: local measures to promote walking and cycling as forms of travel or recreation, Public Health Guidance PH41 [online] available at: <http://guidance.nice.org.uk/PH41>

6.12 Water

- 6.12.1 The EU's '*Blueprint to Safeguard Europe's Water Resources*³¹ highlights the need for Member States to reduce pressure on water resources, for instance by using green infrastructure such as wetlands, floodplains and buffer strips along water courses. This would also reduce the EU's vulnerability to floods and droughts. It also emphasises the role water efficiency can play in reducing scarcity and water stress.
- 6.12.2 The National Planning Policy Framework (NPPF) states that local authorities should produce strategic policies to deliver the provision of a variety of infrastructure, including that necessary for water supply and should encourage and incentivise water efficiency measures at the demand side³².

7 WHAT'S THE SUSTAINABILITY 'BASELINE'?

7.1 Introduction

- 7.1.1 The baseline review is about expanding on the consideration of problems/issues identified through context review so that they are locally specific. A considerable amount of baseline review work has been undertaken by the Council since 2012, and is presented in the Local Plan **Supporting Document**, which is available on the Council's website.³³ Summary messages from the review are summarised (and supplemented) below under the topic headings introduced above.

7.2 Air quality

- 7.2.1 Section 2.12 of the Council's Supporting Document considers the 'environmental quality' issues of air quality, noise pollution, light pollution, groundwater pollution and contaminated land. In relation to air quality, it is stated (amongst other things) that:

*"The historic nature and organic growth of the district's principle towns of Bishop's Stortford, Hertford and Ware have... led to inefficient road and transport networks and where these issues coincide with limited connections to major roads, congestion is inevitable... **Bishop's Stortford** in particular suffers from this issue; the combination of the historic road network combined with its proximity to Stansted Airport means that the town centre frequently suffers from congestion and the resultant poor air quality. As such an Air Quality Management Area (AQMA) has been established in the town centre (Hockerill Lights) to monitor levels of pollutants. There is also an AQMA in **Hertford** (Mill Road/A414 roundabout), with a potential new one being established in London Road, **Sawbridgeworth**. "*

³¹ European Commission (2012) A Blueprint to Safeguard Europe's Water Resources [online] available at http://ec.europa.eu/environment/water/blueprint/pdf/COM-2012-673final_EN_ACT-cov.pdf (accessed 11/2012)

³² Defra (2011) Water for life (The Water White Paper) [online] available at: <http://www.official-documents.gov.uk/document/cm82/8230/8230.pdf> (accessed 08/2012)

³³ <http://www.eastherts.gov.uk/index.jsp?articleid=28043>

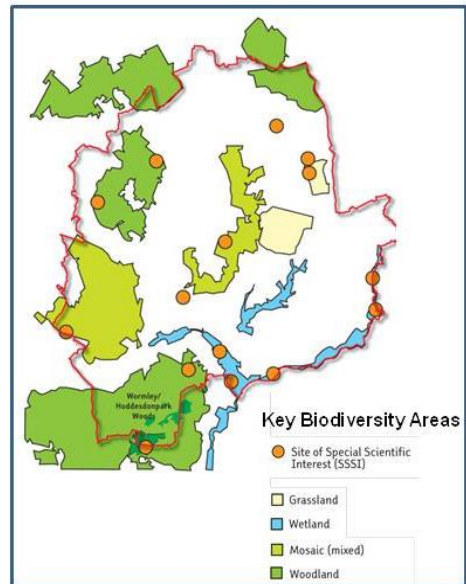
7.3 Biodiversity and green infrastructure

7.3.1 Section 2.8 of the Council’s Supporting Document considers the ‘natural and historic environment’ issues of landscape and the countryside, tranquillity, wildlife / biodiversity / green infrastructure and historic assets. In relation to biodiversity and green infrastructure, it is stated (amongst other things) that:

*“The district contains a number of important **habitats** including impressive wetlands along the Mimram, Stort and Lea Valleys, many of which are a legacy of mineral extraction sites. Ancient woodland areas of national importance are found south of Hertford, including part of the Broxbourne Woods National Nature Reserve. Hornbeam trees are distinctive to this area of the country, making these woodlands really special in a national context. Heathland is one of the county’s rarest habitats. Patmore Heath and Hertford Heath Nature Reserves are both nationally significant Sites of Special Scientific Interest.*

Key Biodiversity Areas (KBAs)³⁴ are areas that support the greatest diversity of species and the greatest extent and highest quality of semi-natural habitat. There will usually be a significant wildlife resource, often as a cluster of sites, and therefore the potential to manage the adjacent land in a way that enlarges and links these sites. It should be noted that some KBAs might have inherently low biological diversity; but which support unusual communities of species that do not occur elsewhere.”

Figure 7.1: Key biodiversity areas



7.3.2 In addition to natural and semi-natural green spaces, other types of open spaces contribute to the district’s ‘green infrastructure’, including: allotments, amenity green spaces, cemeteries and churchyards, children’s playgrounds, Historic Parks and Gardens, playing fields, outdoor sports facilities (e.g. golf courses), and public rights of way / green corridors. Further information is provided in the SA Scoping Report.

³⁴ Key Biodiversity Areas are defined across Hertfordshire. Some area identified as being of regional, as well as County-level, importance. More information is available at: http://www.hef.org.uk/nature/biodiversity_vision/index.htm

- 7.3.3 A page on the Council's website³⁵ presents the Green Infrastructure (GI) Plan for Hertfordshire (and part of Essex) alongside the GI Plan for East Hertfordshire. The East Hertfordshire GI Plan (2011) identifies key initiatives as being focused on:
- Wetlands in the Hertford/Ware area;
 - The Stort Valley and 'countryside links';
 - The other river valleys (i.e. Lee, Stort, Rib, Beane, Quin and Ash);
 - 'Lateral links', in particular the green link between Bishop's Stortford and Stevenage; and
 - Panshanger Park and Mimram Valley greenspace.
 - An existing initiative is set to ensure that following gravel extraction Panshanger Park is established as a Country Park.
- 7.3.4 The Hertfordshire GI Plan (2011) identifies that the Harlow GI plan is an 'existing initiative' that should be taken into account. The Harlow GI Plan (2005) places considerable importance on the GI value of the Stort Valley, north of Harlow, stating for example that:
- *"There are strategic opportunities to further enhance the connectivity and quality of the existing access and recreational resources, and to address deficiencies in access to public open space close to local communities in North Harlow and Sawbridgeworth through the creation of a linear Riverpark based on the Stort Valley"*
 - *"This GI Plan provides an exciting opportunity to deliver a new and bold vision for multi-functional landscapes that meets the needs of urban and rural communities in the Harlow Area... In particular, the Stort Valley presents a major opportunity for developing a series of multi-functional and connected green spaces managed for wildlife, access and recreation on Harlow's doorstep, which is readily accessible to other communities and visitors."*

7.4 Climate change

- 7.4.1 It is important to consider the baseline in relation to per capita carbon emissions from road transport and 'domestic' sources. In 2011, the average East Herts resident was the cause of 2 tonnes CO₂ from transport sources and 2.1 tonnes CO₂ from domestic sources. There is a notable down-ward trend over time – see Tables 7.1 and 7.2 below)³⁶

³⁵ See <http://www.eastherts.gov.uk/index.jsp?articleid=24807>

³⁶ See https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/211904/110713_Local_CO2_NS_Annex_A2_.pdf

Table 7.1: Transport CO₂ per capita

| | 2008 | 2009 | 2010 | 2011 |
|-----------------|------|------|------|------|
| East Herts | 2.2 | 2.1 | 2.0 | 2.0 |
| East of England | 2.5 | 2.4 | 2.3 | 2.3 |
| England | 2.1 | 2.0 | 2.0 | 1.9 |

Table 7.2: Domestic CO₂ per capita

| | 2008 | 2009 | 2010 | 2012 |
|-----------------|------|------|------|------|
| East Herts | 2.5 | 2.2 | 2.4 | 2.1 |
| East of England | 2.4 | 2.1 | 2.3 | 2.0 |
| England | 2.4 | 2.1 | 2.3 | 2.0 |

- 7.4.2 In terms of measures to address climate change mitigation, Section 2.11 of the Council’s **Supporting Document** considers the ‘natural resources’ issues of waste, minerals, food supply, and low carbon energy.
- 7.4.3 In relation to low carbon energy it makes reference to the Hertfordshire Renewable and Low Carbon Strategy (2010)³⁷. One of the study outputs is the identification of high ‘heat demand’ areas where there may be good potential to incorporate district heating³⁸ schemes as part of new development. Notable opportunity areas are identified around Hertford/Ware and Bishop’s Stortford. Smaller opportunity areas are also identified at Buntingford, Puckeridge and Sawbridgeworth. District heating schemes become much more feasible when developed as part of a major mixed use development (500 homes plus). The study goes as far as to suggest policy wording that might be used in order to maximise the potential for such schemes coming forward.
- 7.4.4 Climate change mitigation is likely to increase as an ‘issue’ as the impacts are increasingly felt. The 2009 UK Climate Change Projections predict that (by 2080): Winters are likely to be warmer by around 2.2°C; Summers are likely to be hotter by around 2.8°C; Winter rainfall is likely to increase by 16%; and Summer rainfall is likely to decrease by 19%. The findings of the 2009 projections also highlight the likely increased vulnerability of East Herts to extreme weather events, including more ‘very hot’ days; more intense downpours of rain (flash flooding); and changes in storminess and high winds.

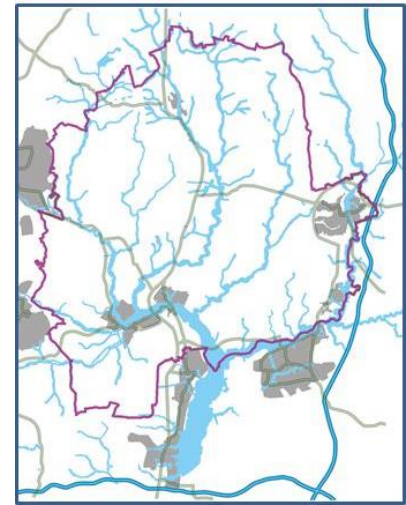
³⁷ See www.eastherts.gov.uk/technicalstudies

³⁸ The study defines district heating as “an alternative method of supplying heat to buildings, using a network of super insulated pipes to deliver heat to multiple buildings from a central heat source, such as a Combined Heat and Power (CHP) plant. A CHP plant is essentially a local, smaller version of a traditional power station but by being combined with heat extract, the overall efficiency is much higher (typically 80% – 85%). Whilst the electrical efficiency of smaller CHP systems is lower than large scale power generation, the overall efficiencies with heat use are much higher resulting in significant CO2 reductions.”

Flood risk

7.4.5 Section 2.6 of the Council’s Supporting Document considers the ‘water’ issues including flood risk. The document makes reference to the District’s Strategic Flood Risk Assessment (SFRA)³⁹, which considers: fluvial (river) flooding – see Figure 7.2; sewer flooding (due to blocked drains); surface water flooding (follows intense rainfall where water cannot soak into the ground or enter drainage systems); groundwater flooding (during wet winters); and ‘artificial sources of flooding’. The flood risk management recommendations include:

Figure 7.2: Flood risk



- Maintain the capacity of the floodplain to retain water and maintain the conveyance of water in the towns and villages to reduce flood risk and provide environmental benefit;
- Safeguard the floodplain from inappropriate development and seek to refurbish buildings / redevelop industrial areas in the floodplain with a view to increasing flood resilience;
- Safeguard land for future flood storage schemes;
- Incorporate appropriate storm attenuation measures into new development; and
- Restore channel and re-establish water meadows.

7.5 Community and wellbeing

Deprivation

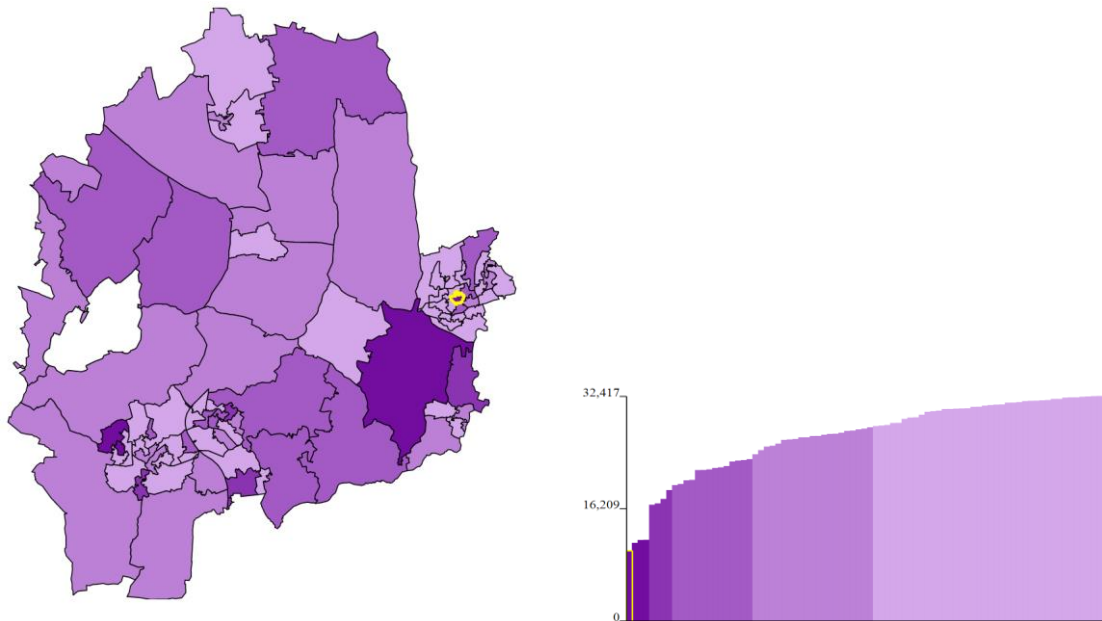
7.5.1 The district can on the whole be considered to be non-deprived. The least deprived Super Output Area (SOA) is the 32,417th most deprived Super Output Area (SOA) nationally out of a total of 32,482.

7.5.2 Four SOAs – those coloured dark purple in Figure 7.3 – stand out as being relatively deprived. The most deprived SOA (highlighted in Figure 7.3) is found at Bishop’s Stortford; the second most deprived SOA is a more rural area to the South of Bishop’s Stortford; and the final two more deprived (i.e. dark purple) LOAs are found to the west of Hertford. The most deprived SOA is the 10,149th most deprived SOA nationally, out of 32,482.⁴⁰

³⁹ See www.eastherts.gov.uk/sfra

⁴⁰ Office for National Statistics – Neighbourhood Statistics [online] available at <http://www.neighbourhood.statistics.gov.uk/dissemination> (accessed 11/2012)

Figure 7.3: Multiple Deprivation (according to IMD2010) in East Herts by Lower Super Output Area. Darker purple = more deprived



Education

7.5.3 Supporting the provision for education is a key issue for the Local Plan. For example, in relation to primary school provision, Section 2.4 of the Council’s Supporting Document states that -

“To assist in informing the decision on which development strategy would be the most appropriate, HCC has provided information indicating both areas where there is existing capacity, and therefore additional development may not be an issue for school place planning, and those areas where there is no capacity, and whether or not it would be possible to address these issues... In summary, in relation to primary schools [for example] generally the primary schools to the north of the district could accommodate more children, if new housing development was to take place in this location. Primary schools to the south of the district have limited existing capacity to accommodate additional need arising from new development. In Hertford a shortage of 2.0FE is forecast in the short term.”

7.6 Economy and employment

7.6.1 Section 2.3 of the Council’s Supporting Document considers the ‘economy’ issues of economic history / geography, businesses and employment land, rural economy, retail and services, and tourism. Key points are as follows:

- East Herts is a prosperous district that contributes significantly to the economy of the county. Residents experience higher than average earnings and low rates of unemployment.

- The district has an economic base built on small and medium-sized firms, including those that provide services linked to Stansted Airport.
- There is a significant Life Sciences business sector cluster focused on Ware, Stevenage and Harlow. The last decade has seen a decrease in office and factory/manufacturing floorspace and an increase in warehouses.⁴¹
- The more successful employment sites are located along the major road corridors at the main towns of Bishop’s Stortford, Hertford and Ware.
- The East Herts Economic Development Strategy (2007) cited ambitions to increase the number of high value jobs in the district. In order to achieve this there would need to be a major new purpose-built employment site, created with specific industries in mind. However, an ambition that concentrates on high-value jobs risks alienating those unable to attain those positions.
- The district’s five main **town centres** are performing reasonably well. Despite the economic downturn, there has only been a slight increase in the number of vacant units. The biggest issue facing the district’s towns is that of competition from neighbouring centres. Stevenage has granted permission for a major redevelopment of its town centre; Welwyn Garden City Centre benefits from a wide retail offer including department stores; Harlow offers a substantial retail experience combined with greater car parking; and Broxbourne Council has an ambition to considerably expand the Brookfield Shopping Centre off the A10, south of Hertford and Ware. It would be impractical and unrealistic to try to compete with these centres, as this would involve the loss of the very character that makes our market towns special. Of all the towns, Bishop’s Stortford has changed the most over time and has recently seen plans approved for a large scale extension to the town centre. Should these plans be implemented, the retail offer within the town will improve.
- The **rural economy** is significant in East Herts. There is a need to preserve it but also support appropriate diversification. One method of protecting the

Figure 7.4: Major employment areas

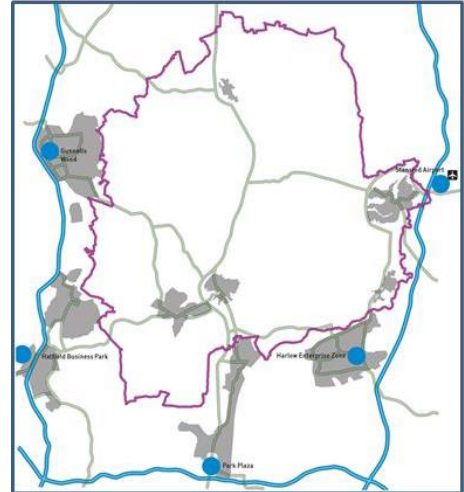
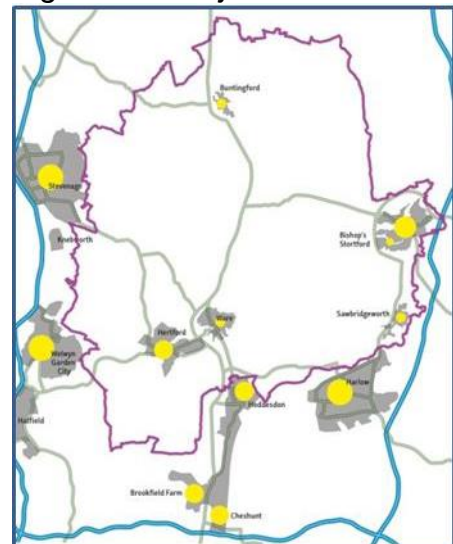


Figure 7.5: Major retail centres



⁴¹ Hertfordshire Strategic Employment Sites Study, 2011

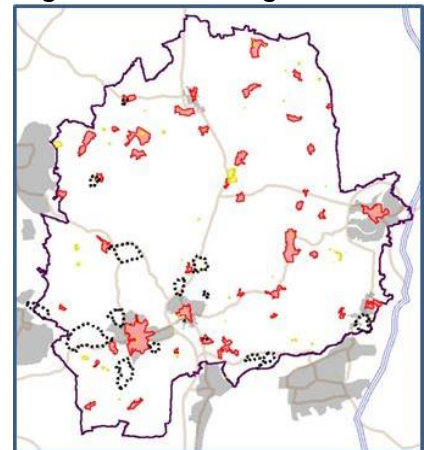
rural economy is by acknowledging the role of environmental stewardship schemes and areas of higher quality agricultural land and seeking to ensure their protection from development where possible. In terms of employment land in the rural area, this tends to be smaller and of comparatively poorer quality than town counterparts. It nonetheless provides valuable locations for small and start-up businesses.

7.7 Historic environment

7.7.1 Section 2.8 of the Council’s Supporting Document considers the ‘natural and historic environment’ issues of landscape and the countryside, tranquillity, wildlife / biodiversity / green infrastructure and historic assets. In relation to historic assets, it is stated (amongst other things) that:

*“Many historic assets are designated under other heritage-related consent regimes rather than through the planning system itself. Nonetheless, planning has a role to ensure that new development does not adversely affect such assets. This is particularly important where development is off-site, but has the potential to still affect the historic asset such as, for example, it’s setting. This is particularly true for development within a **Conservation Area**. East Herts has 42 Conservation Areas, including the town centres of all of the five towns and most Category 1 and 2 Villages. They are, therefore, the historic asset under most pressure, since the majority of development is focused within the existing urban areas. Conservation Areas are not static, although it is crucial that they do not suffer from incremental change that detrimentally affects their character.”*

Figure 7.6: Heritage assets



7.7.2 The evolution of the district’s historic town centres is both a positive and negative; it has led to their unique character and charm, but it has also led to congestion and inflexibility in terms of the potential to accommodate modern travel and shopping habits. There are inherent tensions with regards to planning for town centres in the district.

7.8 Housing

7.8.1 Section 2.2 of the Council’s Supporting Document considers a number of ‘housing’ issues. Of these, the following are briefly considered below:

- demographics and the housing need;
- affordability and the housing market; and
- ageing population and specialist needs.

Demographics and the housing need

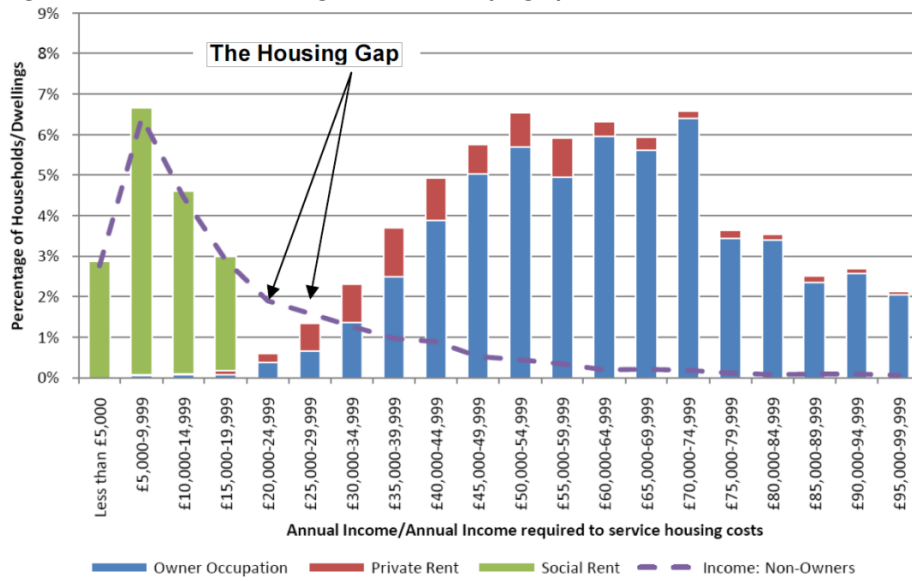
- 7.8.2 Over the next twenty years the population of East Herts is expected to grow. This growth will be caused by both 'natural change' (the difference between births over deaths) as well as people coming into East Herts from outside the district (migration). Migration flows relate to the fact that East Herts is not an 'island', i.e. it is not a single housing market area. Rather, when purchasing a home, people tend to ignore local government administrative boundaries preferring to relocate along travel-to-work corridors.
- 7.8.3 The number of households is expected to grow faster than the population over the same period. The difference between the level of population growth and the level of household growth is due to trends for a reduction in average household size. This reduction is driven to a large degree by an ageing population, as well as a trend of younger people choosing to co-habit later.

Affordability and the housing market

- 7.8.4 Between 2000 and 2008, the average property price in East Herts increased by 117%, compared with 85% in Uttlesford and 133% in Epping Forest.⁴² Affordability of housing (i.e. the relationship of income to house prices) is a key issue.
- 7.8.5 Figure 7.7 identifies a 'gap' in the housing market. If the housing market was balanced, the amount of housing stock (columns) would exceed the proportion of local households who can afford housing in that income band (dotted line) in every income bracket. As can be seen, for those households earning between £20,000 and £29,999 per annum, the columns do not exceed the dotted line so there is a shortage of homes available to either rent or buy

⁴² Information from Strategic Housing Market Assessment (SHMA) (ORS, 2010)
<http://www.eastherts.gov.uk/index.jsp?articleid=15675>

Figure 7.7: The housing affordability ‘gap’



7.8.6 An imbalance in the housing market and a situation whereby individuals are not being able to meet their own housing needs can ultimately lead to homelessness. Alternative outcomes include overcrowding and/or sub-standard housing. To help prevent homelessness, East Herts operates a housing register. As at December 2011 there were 2,754 live housing applications on the East Herts Housing Register, consisting of 5,404 people. This is a 91.5% increase since 2001. Of the 2,754 applications, 1,628 (59%) are considered to be in housing need.

7.8.7 To help balance the housing market, East Herts Council seeks to provide subsidised housing, known as **affordable housing** to those households considered to be in housing need. Affordable housing is delivered through the planning system usually as a percentage of market housing. East Herts Council currently seeks up to 40% on eligible sites. It should be noted that land values vary across the district, and as such, the imposition of affordable housing requirements and tenure mix would have a different impact on the viability of residential schemes in different areas. The lowest value area is in Bishop’s Stortford whilst the highest value area is in Hertford. This broadly reflects the split of the district between the A10 corridor and the M11 Corridor housing market areas.

Ageing population and specialist needs

7.8.8 A key issue for East Herts is its ageing population. Appropriate housing for elderly can be both publicly and privately provided. HCC are seeking the even spread of socially rented units across the district, with the preference being for town locations. In terms of private provision, units could be developed anywhere across the District.

7.8.9 Provision of specialist housing for those with mental health, learning disability and physical disabilities is variable with a shortfall identified in some areas,

which has resulted in a high proportion of placements being made outside of the District. Outpatient numbers are amongst the highest, and the future population growth in East Herts indicates that there will be a need for additional services to meet the growing needs of the population.

7.9 Land

7.9.1 Section 2.9 of the Council's Supporting Document considers the issue of Green Belt, stating (amongst other things) that:

“There is a finite amount of brownfield or previously developed land within the urban areas. Future recycling of urban land is likely to take the form of intensification of existing buildings or estates, the act of which could create increased demand for existing services and facilities, but due to the constrained nature of such sites these developments tend not to be able to provide new facilities on site. Since four of the district's five towns and many of the villages are surrounded by Green Belt, it is doubtful whether it is possible to meet the requirement to ‘promote sustainable patterns of development’ without reviewing the Green Belt and extending existing settlements. It would also be very difficult and expensive to provide adequate supporting infrastructure if all development were to take place beyond the Green Belt, given that the settlements outside the Green Belt areas are by and large quite small.”

7.9.2 Other issues that come under the banner of ‘land’ are discussed in Section 2.11 (‘Natural Resources’). Here it is explained that the district contains Grade 2 and Grade 3 agricultural land but no Grade 1 (the highest classification).

7.10 Landscape

7.10.1 Section 2.8 of the Council's Supporting Document considers the ‘natural and historic environment’ issues of landscape and the countryside, tranquillity, wildlife / biodiversity / green infrastructure and historic assets. In relation to landscape, it is stated (amongst other things) that:

“The defining landscape characteristic of the district is its river valleys and the historic pattern of settlement at river fording points; including five tributaries of the River Lea. Lying between the valleys are the areas of higher ground or plateaus: more exposed agricultural landscapes largely free from significant settlement.

The issue of topography is usually considered in terms of the landscape, and certainly, any assessment of landscape character includes an assessment of topography, since this is often its defining feature. As such, there is no specific guidance in relation to topography other than a ‘rule of thumb’ that (on the whole) development on sloping sites or in visually prominent locations should be avoided.”

7.10.2 A landscape character assessment has identified 63 discrete units within the District, each with a particular character and hence associated with particular

constraints / opportunities. Whilst there are no designated landscapes, it is important to note that the district contains 445 hectares of the Lee Valley Regional Park (to the south of Ware running through Stanstead Abbots and St Margarets). In terms of the farmed landscape, an important issue relates to diversification schemes. Some, such as those that create visitor attractions, result in the intensification of the rural area but can also act as a means of connecting visitors to the countryside, supporting rural jobs and crafts.

7.11 Transport

7.11.1 Section 2.5 of the Council's Supporting Document considers the 'transport' issues of: route hierarchy and connectivity, sustainable transport, park and ride, and rural accessibility. Key points are as follows.

- East Herts is an area with high car ownership. This is due to the dispersed settlement pattern of the district and the level of passenger transport services in some areas failing to provide suitable journey alternatives. There are significant dormitory commuting patterns in the district.
- Car borne traffic is likely to continue to be the most used transport mode and it would be unreasonable to restrict it. There is a need to plan for locally self-sustaining communities, but also offer the ability for as many people as possible to access services by 'sustainable' transport modes.
- The Highways Agency is responsible for motorways and trunk roads. Although it has no coverage for roads in East Herts, it is concerned about how development in the district may impact, particularly on the the A1(M). The Highways Agency does not expect to cater for unconstrained traffic generated by new development, and therefore considers that development should be located where car dependency can be managed.
- Due to restricting budgets, it is likely that most new bus service provision will either have to be commercially self-financing or be totally funded via development led contributions. Therefore, the ability of developments to economically support frequent and reliable services, either through enhanced existing services or new specific provision where necessary, will be crucial in helping to ensure reduced car dependency.
- In terms of rail capacity, one point to note is the likely future increase in the frequency of the service from Hertford to Moorgate. It is improbable that any new lines or stations will be provided in the district, within the Plan period, as there is unlikely to be the critical population mass to support such schemes. This is also likely to be the case for potential schemes involving light rail, trams and guided busways. To date, no park and ride facilities have been provided in East Herts, although the Hertford and Ware Urban Transport Plan examines in simplistic terms the potential for a shared facility to be provided to serve both towns, should the population base in the area increase and economic viability be established in the future.
- Some rural residents have very limited transport choices and therefore suffer 'transport deprivation'. This can be a particular problem for those on low

income, young people, older people and those with disabilities. It is important that the development strategy for the district should not exacerbate this situation and should, where possible, seek to improve modal choice.

7.12 Water

7.12.1 Section 2.5 of the Council's **Supporting Document** considers the 'water' issues of: water demand, water supply and water quality. Key points are as follows:

- Catchment Abstraction Management Strategies (CAMS) assess the wider impacts of cumulative abstractions. In future decades there will be increasing pressures from the rising population and associated development. Looking further ahead, climate change could have a major impact on the water that will be available for consumption.⁴³
- The current Water Resources Management Plan for the area (Veolia Water, March 2010) suggests that there is likely to be sufficient water to meet demand through to 2035 without developing new water resources. In reaching this conclusion Veolia acknowledges uncertainty around several variables (most notably the rollout of water metering), but has allowed a margin of error and remains flexible in its approach.
- However, the Environment Agency has advised East Herts Council that the worst case water demand scenario would be likely to impact the level of the chalk aquifer and therefore impact on river flow levels and water quality. Many of the district's Sites of Special Scientific Interest (SSSIs) and the Lee Valley Special Protection Area are water dependent. Reduced water levels could hinder achievement of European Water Framework Directive targets.
- A strategic sewerage issue relates to the capacity of the Rye Meads treatment works, located in the far south of the district. Environmental designations mean that there are significant constraints to expansion of the treatment works to cater for large-scale development within the catchment. Recognising these constraints, in 2008 the Rye Meads Water Cycle Strategy was produced to investigate the capacity for development in the catchment, taking into account potential solutions. The Strategy recommended that water efficiency targets would help to reduce the impact of development on water resources, allowing water to remain in the environment for ecological and leisure purposes and negating the need for new resources such as reservoirs. Water neutrality was suggested as an ambition. This would involve offsetting water demand from new development by increased water efficiency and reduced demand in existing buildings. Since the study was commissioned, volumes of treated effluent discharged to the river have been lower than the levels forecasted. This is because of reduced consumption and also lower rates of housebuilding than were envisaged in 2008. Therefore concerns about capacity have somewhat receded. Whilst Thames

⁴³ Environment Agency (2012) The state of water in Kent [online] available at: <https://shareweb.kent.gov.uk/Documents/environment-and-planning/environment-and-climate-change/water%20summit/state-of-water.pdf> (accessed 08/2013)

Water continues to monitor the situation closely, it does not believe that there are sufficient grounds for refusing particular developments during the plan period due to capacity constraints at Rye Meads.

- Another strategic issue is the capacity of the trunk sewer serving Stevenage, which runs along the Beane Valley before entering the Lea Valley in Hertford. Upgrades to this sewer are likely to be costly.
- East Herts Council has discussed with Thames Water the concept of localised sewage treatment such as low technology reed beds. These are not feasible for large developments given the amount of land that is required. They also require high levels of maintenance.
- Thames Water and the Environment Agency advocate the use of Sustainable Urban Drainage Systems (SUDs). These come in a variety of forms and have a variety of beneficial effects in terms of reduced flood risk and the freeing-up of capacity within sewers, which can be particularly important during and after periods of heavy or prolonged rainfall.
- Between 2007 and 2012 the average resident of East Herts consumed 160 litres/day. This compares with the national average of 150 litres/day over the same period.

8 WHAT ARE THE KEY ISSUES & OBJECTIVES?

8.1.1 Drawing on the review of the sustainability context and baseline, the 2010 Scoping Report identified a list of sustainability issues / objectives that should be drawn upon as a methodological 'framework' for the appraisal. These are listed below (in a slightly updated form) under 'topic' headings.

Air quality

- Improve air quality in AQMAs and other areas exceeding air quality objective levels.
- Protect problem areas / areas of known sensitivity from traffic congestion and polluting activities.

Biodiversity and green infrastructure

- Protect and enhance areas designated for nature conservation including key biodiversity areas and Local Wildlife Sites.
- Plan for multi-functional green infrastructure at different scales, including within major developments and across administrative boundaries.

Climate change

- Aim to lower per capita GHG (greenhouse gas) emissions.
- Increase the amount of energy generated by decentralised or renewable sources.
- Minimise the impact of development on surface water flooding and avoid development within areas of flood risk.
- Support water efficiency and energy efficiency.

Community and wellbeing

- Meet the needs (including health and social care) of a growing and ageing population.
- Plan for those with specialist needs, including the disabled population.

Economy and employment

- Support targeted job creation, e.g. capitalising on expansion of Stansted Airport.
- Match job creation with the provision of appropriate facilities and infrastructure.
- Support greater rates of gross value added (GVA).

Historic environment

- Protect the District's historic environmental assets (both designated and non-designated) from inappropriate development.

- Capitalise on the potential that historic assets have to contribute towards place-shaping (e.g. as the inspiration for design).
- Recognise the potential for unknown historic sites to act as a constraint on development.

Housing

- Provide for sufficient new dwellings over the plan period, including specialist housing.
- Increase the provision of affordable housing.
- Provide additional Gypsy and Traveller pitches, in appropriate locations, in line with up-to-date evidence on need.

Land

- Support efficient use of land, including development of previously developed land (PDL).
- Support the remediation of contaminated land.
- Consider waste minimisation at the design stage of development.

Landscape

- Protect and enhance the district's landscape character areas and key landscape assets.
- Ensure that landscape assets, such as hedgerows, are protected and integrated within development (to maximise their potential amenity value).

Transport

- Facilitate a modal shift away from the private car, with a particular focus on reducing commuting by car.
- Although it is recognised that all new development will add to congestion through increased vehicle movement, there is a need to ensure that the impacts are not severe.
- Seek to improve rural accessibility to bus services.

Water

- The sub-region experiences water scarcity, and this is likely to be exacerbated due to climate change and future growth and development.
- Support reduced per capita consumption of water.
- Distribute development taking into account water supply and sewerage infrastructure.
- Prevent contamination of the major aquifer beneath East Herts.

PART 2: WHAT HAS PLAN-MAKING / SA INVOLVED UP TO THIS POINT?

9 INTRODUCTION (TO PART 2)

9.1.1 Part 2 of this SA Report is structured as follows –

Chapter 10 - Provides an overview of plan-making / SA work undertaken **between 2008 and 2011** and signposts readers to further information

Chapter 11 - Explains in detail the work focused on spatial strategy development that has been undertaken **since 2011**, when preparing the preferred options document. It is here that information is presented on reasonable alternatives.⁴⁴

Alongside development of the spatial strategy work was also undertaken to develop thematic, district-wide policies under the following headings: Housing, Economy, Retail and Town Centres, Design, Transport, Community Facilities Leisure and Recreation, Natural Environment, Landscape, Heritage Assets, Climate Change, Water, And Environmental Quality. Policy-making in relation to thematic issues has not been the focus of alternatives appraisal; however, Part 3 of this Interim SA Report presents an appraisal of the draft plan (in its entirety) as it stands at the current time. Appraisal findings and recommendations from Part 3 will be taken on-board when preparing the next ('proposed submission') version of the plan.

⁴⁴ The SEA Directive requires there to be appraisal of reasonable alternatives prior to preparing the draft plan, with information subsequently presented for consultation in the SA Report. Whilst this document is not the SA Report, it is timely and appropriate to present information on alternatives at the current time.

10 PLAN-MAKING / SA WORK UNDERTAKEN BETWEEN 2008 AND 2011

10.1 Introduction

10.1.1 Plan-making has been underway since spring 2008, and all information gathered (through consultation, appraisal and technical evidence-gathering) has fed-in and influenced the emerging plan. The aim of this chapter is to give a brief overview of SA work undertaken prior to 2012. The subsequent chapter considers work undertaken since 2012 in greater detail.

10.2 Overview

10.2.1 Plan-making has been underway since spring 2008, when two rounds of public engagement sought to raise awareness and elicit residents' likes and dislikes. SA 'fed-in' for the first time in **2010**, when an Interim SA Report was published for consultation alongside the Council's *'Issues and Options'* consultation document.⁴⁵

10.2.2 The Interim SA Report set out an appraisal of six distinct development strategy options⁴⁶ and six housing distribution options⁴⁷. Alternative growth options were also appraised for the following key areas: Bishop's Stortford; Buntingford; Hertford; Sawbridgeworth; Ware; Villages; North of Harlow. The Interim SA Report is available at:

http://www.eastherts.gov.uk/media/pdf/p/f/SA_April_2010.pdf.

10.2.3 Appraisal findings have fed into more recent plan-making. In particular, appraisal findings in relation to the different spatial options fed into the identification of 69 'areas of search' (see Step 3a, below).

⁴⁵ See www.eastherts.gov.uk/issuesandoptions

⁴⁶ **1.** Towns; **2.** Towns and Larger Service Villages; **3.** Towns, Larger Service Villages, and Smaller Service Villages; **4.** Towns, Larger Service Villages, Smaller Service Villages, and Other Villages / Hamlets; **5.** Towns, Stevenage and Welwyn Garden City; and **6.** Settlements within Transport Corridors.

⁴⁷ **1.** Proportional distribution; **2.** Adjusted proportional distribution; **3.** Reversed proportional distribution; **4.** Equal distribution; **5.** Distribution by land availability; and **6.** Distribution by settlement type.

11 DETAILED CONSIDERATION OF THE SPATIAL STRATEGY (2012 - 2013)

11.1 Introduction

11.1.1 In 2012 the Council embarked on a ‘stepped’ approach to spatial strategy-making. Each step corresponds with a Chapter of the Supporting Document to the District Plan, which was presented at a series of committee meetings between March 2012 and December 2013. For more information see www.eastherts.gov.uk/supportingdocument.

- **Step 1** (Chapter 1: Background and Approach) involved exploring ‘the nature of the task’.
 - Consideration was given to progress on the Local Plan to date and the scope of forthcoming work taking into account factors such as the national planning policy context (e.g. relating to localism and the duty to cooperate) and the critical role of infrastructure planning / delivery.
- **Step 2** (Chapter 2: Issues) involved exploring the strategic planning issues.
 - Issues were explored under the following thematic headings: Housing; Economy; Education; Transport; Water; Telecoms, Gas and electricity; Natural and historic environment; Green Belt; Community and leisure; Natural resources; and Environmental quality.
- **Step 3** (Chapter 3: Assessment Criteria) involved developing a series of assessment criteria under ‘topic’ headings.
 - The topic headings – i.e. Land availability, Employment potential, Primary schools, Secondary schools, Highways infrastructure, Vehicular access, Access to bus services, Access to rail, Waste water, Flood risk, Wildlife sites, Historic assets, Landscape character, Green Belt, Strategic gaps, Boundary limits, Community facilities, Agricultural land, Environmental stewardship, and Noise – were identified taking into account the established SA Framework (see Part 1, above).
- **Step 4** (Chapter 4: Places) involved drawing on the criteria established at Step 3 to assess 69 ‘areas of search’.
 - Assessment involved a ‘sieving’ process, where: **Sieve 1** looked at each of the areas of search in isolation; and **Sieve 2** looked at combinations around each of the main towns.⁴⁸
 - 18 areas of search dropped-out from further consideration at this stage. Also, a number of options were ‘refined’ in that: 1) sub-areas were

⁴⁸ Sieve 2 went beyond strict application of the assessment criteria, taking into account: Economic geography of the settlement and wider area; Current and potential future function / role; Settlement hierarchy and functional relationships between settlements; Travel-to-work patterns; Current development proposals which could impact the emerging strategy; Local development pressures and those of the wider area; Local constraints, for example relating to traffic congestion, particular items of infrastructure, or environmental and historic constraints; Local opportunities, for example large brownfield sites for extensions to the town centre or other development; The aspirations of adjoining Local Planning Authorities where relevant; Town centre capacity to potentially provide an anchor for future development; and Long-term prospects beyond 2031.

removed from further consideration; and/or the ‘scale (i.e. the level of growth) assumption’ was modified.

- **Step 5** (Chapter 5: Options Refinement) involved further sieving of the shortlisted areas of search taking into account potential impacts on urban form and economic development.
- **Step 6** (Chapter 6: Conclusions) took into account further information gathered through the Green Belt Review, submissions made by Hertfordshire County Council (in relation to schools and transport), and submissions made by landowners/developers.
 - None of the 51 shortlisted areas of search dropped-out at Steps 5 or 6, but the assessment did lead to a number of further modifications to scale assumptions.

11.1.2 Step 3 – 6 are important from an SA perspective as they essentially involved identifying and then appraising development **options**.⁴⁹ As such, **Section 11.2**, below, explains more about the process of 1) identifying development options; and 2) sieving/appraising development options.

11.1.3 Subsequent to sieving/appraising the development options the Council was able to identify⁵⁰ a preferred spatial strategy, i.e. a preferred approach to distributing the 15,000+ homes that must be developed over the plan period. A number of **alternatives** to the preferred spatial strategy were also identified. The appraisal of ‘reasonable alternatives’ is important from a perspective of SEA Directive compliance.⁵¹ As such, **Section 11.3**, below, explains more about the process of 1) identifying alternatives; and 2) appraising alternatives.

11.1.4 Section 11.3 also goes a step further by presenting the Council’s response to appraisal findings.⁵² This is the Council’s opportunity to explain why the preferred approach is the most appropriate in-light of alternatives appraisal.

⁴⁹ It is generally accepted that site options should be appraised prior to determining a preferred approach to site allocations.

⁵⁰ The preferred strategy was presented in the Interim Development Strategy Report (January 2014). The aim of the report was to explain how the preferred approach meets NPPF requirements in a manner appropriate to local circumstances. For more information see www.eastherts.gov.uk/strategyreport.

⁵¹ The SEA Directive requires that development of the draft plan is preceded by appraisal of ‘reasonable alternatives’.

⁵² Presenting this information, and information on ‘the process of identifying alternatives’, reflects the SEA Directive requirement to report ‘outline reasons for selecting the alternatives dealt with’.

11.2 Development options

Identifying options

- 11.2.1 The process of identifying the development options – i.e. areas of search with scale assumptions - is explained in detail across Chapters 3 and 4 of the Council’s Supporting Document. The following is a summary.
- 11.2.2 The 69 development options were identified on the basis of a number of factors, including:
- They correspond with the range of alternative spatial approaches presented for consultation in the ‘Issues and Options’ consultation document (2010), with some modifications as explained in Section 1.10 of the Supporting Document.
 - A small number of areas adjacent to the towns were not included in the 69 where the area has no potential to accommodate strategic-scale development (at least 500 dwellings) given, for example, protected public-open space or extensive flood plain.⁵³
 - Where possible the extent / scale of growth assumed was defined taking into account available parcels of land and clear physical features (e.g. roads) that might provide a robust limit to the growth of a settlement, e.g. the bypass at Bishop’s Stortford and the A10 at Ware.⁵⁴
 - Where there were no clear physical boundaries ‘initial scale assumptions’ were made (see further discussion at paras 4.2.23 – 4.2.27 of the Supporting Document). A typical scale assumption was 500 dwellings.
 - A standard scale of growth around villages was similarly assumed.
 - Some small villages were not been included in the list of 69 options as they have very limited services and facilities, and lie away from transport corridors.
 - With regards to the six ‘new settlement’ development options, paras 4.2.5 – 4.2.15 of the Council’s Local Plan Supporting Document explain how an initial list of 14 was refined-down via a process of criteria-based assessment.
- 11.2.3 It is also important to note that the options were ‘refined’ somewhat over time (irrespective of sieving / appraisal) on the basis of emerging information regarding land availability. For example, at Bishop’s Stortford East the original assumed scale assumption was revised downwards on the basis of land availability.

⁵³ For example, the green wedges in Bishop’s Stortford (including Southern Country Park), the Hertford green fingers including the meads between Hertford and Ware, and the eastern side of Sawbridgeworth which includes Pishiobury Park and extensive flood plain.

⁵⁴ The A10 at Buntingford serves a similar function, although the Buntingford Business Park is located on the opposite side of the A10 and therefore the site option to the west of the town crosses the A10.

11.3 Spatial strategy alternatives

Identifying alternatives

11.3.1 On the basis of the stepped process of development options appraisal the Council was able to identify a preferred spatial strategy and a number of alternative spatial strategies.

11.3.2 The **preferred approach** involves planning for a total of 15,932 as follows:

- *Allocating* land for 5,580 homes, primarily at urban extensions but also at a small number of particularly significant sites within the urban areas;
- Identifying *broad locations* for 5,250 homes to 2031 that will be a focus of further work with a view to allocating sites through a subsequent plan; and
- Supporting 5,102 homes to come forward through other sources of supply.

11.3.3 The breakdown of these figures is provided in **Table 11.1** below

Table 11.1: The preferred spatial strategy

| Site / broad location | Total 2011-2031 |
|-----------------------------------|-----------------|
| Bishop's Stortford Goods Yard | 200 |
| North of Bishop's Stortford | 2,600 |
| East of Bishop's Stortford | 150 |
| South of Bishop's Stortford | 1,000 |
| Buntingford South (former Depot) | 300 |
| Buntingford North | 180 |
| North of Hertford | 150 |
| South of Hertford | 50 |
| West of Hertford | 550 |
| West of Sawbridgeworth | 400 |
| Site allocations total | 5,580 |
| Gilston Area (north of Harlow) | 3,000 |
| East of Welwyn Garden City | 450 |
| North and East of Ware | 1,800 |
| Broad locations total | 5,250 |
| Windfall allowance (towns only) | 1,200 |
| Completions | 1,082 |
| Commitments | 1,572 |
| Villages | 500 |
| Bishop's Stortford Urban Area | 247 |
| Buntingford Urban Area | 13 |
| Hertford Urban Area | 451 |
| Sawbridgeworth Urban Area | 5 |
| Ware Built-Up Area | 32 |
| Other supply sources total | 5,102 |
| GRAND TOTAL | 15,932 |

- 11.3.4 The starting point for identifying alternative approaches was the question of **housing quantum**, i.e. the number of new homes necessitated. The evidence-base points strongly towards a need to deliver **at least 15,000 homes** over the plan period in order to meet objectively assessed needs.
- 11.3.5 A **lower growth approach** would not meet objectively assessed housing needs. The NPPF establishes that authorities may plan for less than objectively assessed need only if neighbouring authorities are in a better position to accept that need (and agree to accept the unmet need). This is not the case for East Herts; and, as such, a lower growth approach is not 'reasonable' and need not be the focus of SA.
- 11.3.6 It is, however, reasonable that a **higher growth approach** is tested, i.e. reflected in one of the alternative approaches that are the focus of SA. There is potentially a scenario whereby the unmet needs of neighbouring authorities must (in accordance with the Duty to Cooperate) be accommodated.⁵⁵
- 11.3.7 Subsequent to considering the question of alternative growth quantum, there was a need to consider the question of **spatial approach**. The following are strategic considerations that were taken into account when identifying reasonable alternatives:
- **Brownfield/greenfield:** Available brownfield sites are few in number. As such, a greater focus on brownfield land is not a reasonable alternative.
 - **Green Belt:** Theoretically it might be possible to accommodate 15,000 dwellings in those areas to the north of the district that are not designated Green Belt; however, a focus on development in the north of the district is far from ideal in many respects. In-light of this, an option is presented below (as 'reasonable') that would involve avoiding urban extensions into the Green Belt and instead delivering 10,000 dwellings in the Gilston Area. Despite part of this area being in the Green Belt (and despite there being question-marks around deliverability of growth here at this scale) the '10,000 homes in the Gilston Area' option is considered more realistic than other comparable (i.e. non-new settlement) options for development outside the Green Belt.
 - **Scale of developments:** A strategy that concentrates growth at a small number of large developments is preferable to a dispersal approach.⁵⁶ Development at scale helps to achieve a degree of self-containment, not least because development becomes more financially viable and hence there becomes greater potential to fund the delivery of infrastructure.
 - **Urban areas:** It is not necessary for the alternatives to reflect a range of approaches to development of the many sites within the urban areas, i.e. it is appropriate for the approach to development within urban areas to be common across all alternatives. These sites are inherently less contentious

⁵⁵ There is much uncertainty regarding whether or not East Herts is in a better position than neighbouring authorities to accept growth. Work is ongoing to consider the 'deliverability' of higher levels of development.

⁵⁶ Dispersal approaches were considered as part of the 2010 Issues and Options consultation (and within the Interim SA Report published alongside the consultation document).

from a 'sustainability' perspective, and the Strategic Land Availability Assessment (SLAA) work undertaken points clearly to a preferred approach.

- **Villages:** Early work on plan development (see, for example, the Interim SA Report presented alongside the Issues and Options document in 2010) drew attention to the weaknesses of the 'focus large volumes of growth at villages' option on the basis that villages are associated with limited services and entrenched 'car dependency'. The preferred approach of focusing 500 dwellings in the villages is therefore common to all options.
- **Greenfield allocations:** A number of greenfield allocations on the edges of the market towns are included in the preferred approach, ranging in scale from 50 dwellings to 1,000 dwellings. Notwithstanding site-specific matters, there are broad similarities between each of these locations as they relate to strategic sustainability considerations. As such, the approach to greenfield allocations is common across all of the alternatives except one (which reflects an approach whereby there are no greenfield allocations).
- **Broad locations (scale):** The appropriate scale of development at the three preferred Broad Locations is uncertain due to deliverability complications, and sustainability considerations. Therefore testing of different scales of development is appropriate. That said, it is known that scale thresholds exist (roughly) that must be reached if necessary infrastructure is to be delivered.
- **Other large urban extensions:** The Supporting Document identifies two locations for urban extensions - East of Stevenage and West of Sawbridgeworth - which are not reflected in the preferred approach. The choice of location for urban extensions has important sustainability implications, and hence it is important that alternatives vary in this respect.
- **New settlements:** There are major uncertainties around the deliverability of strategic scale development at the three preferred Broad Locations (and other possible locations for strategic scale urban extensions). The intention is for further work to be undertaken through a Broad Locations DPD with a view to overcoming constraints; however, it may transpire that there are fundamental constraints that cannot be overcome, in which case a new settlement (or more than one new settlement) will be necessary in order to ensure sufficient housing supply. At this stage no specific new settlement option is near to being considered deliverable, and in most cases the land has not even been put forward for consideration; however, it is reasonable for 'the new settlement option' to be appraised. Rather than arbitrarily picking one of the possible new settlement locations, the option that is the focus of appraisal is 'a new settlement in a transport corridor'. This approach is sufficient to allow comparable / meaningful appraisal.

11.3.8 Taking account of the above considerations, seven alternatives to the preferred approach were developed, making eight alternatives in total. These are shown in **Table 11.2**. N.B. All eight assume 5,102 dwellings from 'other' supply sources.

Table 11.2: Alternative options for appraisal

| Option | Total housing growth | Allocations | Broad locations |
|--------|----------------------|-------------|---|
| 1* | 15,932 | 5,580 homes | 3,000 homes in the Gilston Area 1,800 homes North and East of Ware 450 homes East of Welwyn Garden City |
| 2 | 15,382 | 5,580 homes | 1,700 homes East of Welwyn Garden City 3,000 North and East of Ware |
| 3 | 15,382 | 5,580 homes | 1,700 homes East of Welwyn Garden City 3,000 homes West of Sawbridgeworth (with a bypass) |
| 4 | 15,682 | 5,580 homes | 5,000 homes East of Stevenage |
| 5 | 15,682 | 5,580 homes | 5,000 homes in the Gilston Area |
| 6 | 15,682 | 5,580 homes | 5,000 homes at a new settlement in a transport corridor |
| 7 | 15,102 | 0 homes | 10,000 homes in the Gilston Area |
| 8 | 25,382 | 5,580 homes | 1,700 homes East of Welwyn Garden City 3,000 homes North and East of Ware 10,000 homes at In the Gilston Area |

*The preferred approach

11.3.9 The following commentary on each of the options supplements the justification text provided above (para 11.3.7):

- **Option 1** is the preferred approach and hence must be appraised (alongside alternative approaches).
- **Option 2** involves ‘maximising’⁵⁷ growth at two of the Broad Locations - East of Welwyn Garden City and North and East of Ware – at the expense of growth in the Gilston Area.
- **Option 3** follows the same principle as Option 2 but instead tests the discounted option west of Sawbridgeworth, with the provision of a bypass.
- **Option 4** tests the concept of an urban extension East of Stevenage, despite this option having been previously discounted through the Council’s strategy selection process as set out in the Supporting Document.

⁵⁷ i.e. this is the scale of growth that is possibly deliverable. Certainty around delivery on this scale before 2031 is, however, relatively low.

- **Option 5** tests the concept of development in the Gilston Area without development at the other Broad Locations.
- **Option 6** tests the concept of a new settlement in a transport corridor. The indicative, ‘non-location-specific’ nature of the option is appropriate at this stage, given the paucity of available evidence in relation to specific locations.
- **Option 7** enables testing of a) a higher level of development in the Gilston Area and b) no urban extensions to the market towns. This option is also indicative. It is recognised that such extensions are, in fact, necessary in order to ensure housing supply in the short-term.
- **Option 8** enables testing of higher levels of growth which might result if the Council has to accept the unmet need of other districts. This option is also indicative. It is recognised that there are potentially numerous ways of achieving a 15,000 home target.

11.3.10 It is important to emphasise that, whilst there are other options that could be appraised, it would not be appropriate (‘reasonable’) to appraise more than eight in total given the need to ensure accessibility / engage the public. The range of alternatives is sufficient to ‘tease out’ all of the key sustainability issues / arguments. It may be that the final preferred approach does not precisely reflect any of the eight alternatives, but is justified on the basis of the alternatives appraisal nonetheless.

[Appraising alternatives \(and taking account of appraisal findings\)](#)

11.3.11 **Tables 11.3 and 11.4** present the alternatives appraisal and the Council’s response, i.e. the Council’s reasons for selecting the preferred approach in light of appraisal findings. Table 11.4 (which considers each option in turn) is something of a ‘refinement’ of Table 11.3 (which considers each SA topic in turn). Further alternatives appraisal text is also presented in **Appendix B**.

11.3.12 **Table B.2 in Appendix B** seeks to further summarise appraisal findings by ‘ranking’ the performance of the alternatives in terms of each of the SA topics. It is important to provide this ‘at a glance’ summary (with a view to stimulating engagement and debate); however, it is important to bear in mind that the rankings are highly uncertain in many cases. Table B.2 should be read alongside Tables 11.3 and 11.4 (and Appendix B), where the discussion text seeks to caveat appraisal findings with reference to the numerous assumptions made.⁵⁸

⁵⁸ Readers should note, in particular, that the appraisal findings / rankings give considerable weight to the performance of options in terms ‘self-containment’, and in order to do so there has been a need to make assumptions regarding future infrastructure delivery. In practice, however, infrastructure delivery is highly uncertain. Whilst uncertainties around viability and infrastructure delivery have not been discussed in detail as part of the SA, they have been a focus of plan-making (as explained in the Supporting Document).

Table 11.3: Alternatives appraisal findings and Council response – by Topic

| SA Topic | Alternatives appraisal findings | Council response |
|--|---|---|
| Air quality | <p>The impacts on the Air Quality Management Areas in Bishop's Stortford, Hertford, and Sawbridgeworth is the main concern, and therefore the Preferred Option (Option 1) performs less well, although some mitigation measures may be feasible. The best option would be to concentrate development with high levels of self-containment and avoid the towns with AQMAs (Option 7, followed by a new settlement in a transport corridor - Option 6). Sawbridgeworth bypass could avoid the AQMA there (Option 3). Higher levels of growth (Option 8) are more likely to be detrimental. A lower level of growth at the Gilston Area (Option 5) is less likely to fund a Harlow Northern Bypass (A414-M11) which could channel traffic onto the M11 and away from the European Sites in the Lea Valley, Broxbourne-Hoddesdonpark Woods and Epping Forest.</p> | <p>The impact on the Bishop's Stortford and Sawbridgeworth AQMAs will be studied further through the Urban Transport Plan during 2014, and on Hertford through the A414 study due to report in Spring 2014. Whilst AQMAs are considered to be important, the Council is not aware of examples where the Planning Inspectorate has sought to reject growth options on this basis.</p> <p>The provision of an A414-M11 northern link road would have air quality benefits but the deliverability is uncertain. The Broad Locations DPD should assess this in more detail. A Sawbridgeworth Bypass would not address the Duty to Co-Operate with Harlow.</p> <p>A final Habitats Regulations Assessment will be undertaken prior to examination of the District Plan, to understand the impacts on the European Sites.</p> |
| Biodiversity and green infrastructure | <p>Much of the biodiversity and leisure interest lies along the river corridors which are protected under all the options. There are relatively low levels of differentiation because all the development options involve some development in the vicinity of areas of biodiversity, and all involve some development on agricultural fields low in biodiversity. Therefore more detailed site-specific consideration will be necessary during future planning stages, which will also need a sustainable drainage strategy to minimise run-off risks</p> | <p>The Supporting Document shows how the development strategy has been prepared to reflect the impacts on the hierarchy of designations (NPPF Paragraph 113). As the SA points out, green infrastructure can mitigate impacts, and the draft policies (topic-based and settlement level) require this. Green Wedges and Green Fingers are a key part of the development strategy. Masterplanning and layout will be further considered through DPDs and SPDs.</p> |

| SA Topic | Alternatives appraisal findings | Council response |
|--------------------------------|---|---|
| | <p>to sensitive sites, for example Hunsdon Meads SSSI and the Lea Valley.</p> <p>Option 6 (new settlement) could perform well if a suitable site can be found. Higher levels of growth in the Gilston Area (Options 7 and 8) perform least well because there is a risk that it could impinge on the streams through the area, although this could be mitigated through careful design. Although there is an option avoiding development at the edges of the market towns (Option 7), this would not perform better than the other options given the assumption that biodiversity interest would be preserved through appropriate green infrastructure.</p> | |
| Climate change | <p>Larger sites have better potential for clean energy infrastructure and better prospects for self-containment to reduce out-commuting and therefore lower vehicle emissions.</p> <p>West of Sawbridgeworth (Option 3) would likely be less self-contained. Concentrating growth in the Gilston Area (Options 7 and 8) would support self-containment and delivery of clean energy infrastructure.</p> | <p>The District Plan is set to contain policies to promote low carbon heating, particularly at the larger development locations. Masterplanning of development to increase self-containment and design in low carbon technology will be a feature of the Broad Locations DPD.</p> |
| Community and wellbeing | <p>Options are assumed to perform better where the effect would be to support provision of new or better facilities, or enable existing facilities to perform better.</p> <p>Option 8 (high growth) performs well as it provides for new facilities across the district. Option 2 performs next best because it could provide facilities in the Gilston area, Ware, and Welwyn Garden City, followed</p> | <p>It is acknowledged that East of Welwyn Garden City will look to that town for many of its services. This is a part of the Duty-to-Cooperate in terms of cross-boundary strategic priorities and will need further work with Welwyn Hatfield Borough Council.</p> <p>Agreed that the new school capacity at Ware is likely to be a significant issue. This will be assessed further</p> |

| SA Topic | Alternatives appraisal findings | Council response |
|--|---|--|
| | <p>by Option 3 (Welwyn Garden City and Ware but not the Gilston Area). Options 3, 4, 5, and 6 which do not provide an urban extension North and East of Ware for new schools in the Hertford/Ware catchment perform poorly. Option 3 is ranked below Option 2 because there are doubts of the ability of a small town like Sawbridgeworth to provide substantial facilities, even with high levels of growth. Option 7 (avoid urban extensions) performs poorly as it would not provide opportunities to enhance community facilities through development.</p> | <p>through the Broad Locations DPD. Agreed that Option 7 (avoiding urban extensions to the towns and focusing on the Gilston Area) would have negative impacts and this supports the proposed development strategy. Whilst Option 8 could perform well in terms of this topic, the Interim Development Strategy Report finds that deliverability of this level of development to look very doubtful.</p> |
| <p>Economy & employment</p> | <p>Options which enable a spread of employment opportunities in viable locations are assumed to perform well. In particular, it is important to consider that the A414 is a key connective transport route between the life science industries stretching from Harlow, Ware, and Welwyn Garden City through to Stevenage; and that Bishop's Stortford is an attractive location given its proximity to the M11 and Stansted Airport.</p> <p>- Option 8 performs best, followed by Option 2 and then Option 1. The Gilston Area (Option 5) performs better than the East of Stevenage (Option 4) because it is closer to the main employment areas and therefore more viable. A new settlement (Option 6) may not be as viable as opportunities closer to existing employment clusters. West of Sawbridgeworth (Option 3) is not an attractive location for business. Option 7</p> | <p>The Strategy Economic Development Advice (DTZ, 2012) shows that East Herts functions primarily as a source of labour and is generally not well suited as a location of new strategic business parks. The study also drew attention to the increase in service jobs outside employment areas which results from housing development and greater population.</p> <p>Agreed that Sawbridgeworth is not an attractive location for a new employment area and therefore a large urban extension (Option 3) is not appropriate.</p> <p>Agreed that Bishop's Stortford is the premier location in the district for new employment due to its links to Stansted Airport. Each urban extension would have the potential to build in a mixture of uses, thus providing small scale employment opportunities. Hence Option 7 performs poorly in this respect as these opportunities would be lost.</p> |

| SA Topic | Alternatives appraisal findings | Council response |
|------------------------------------|---|--|
| | <p>would not capitalise on opportunities for employment growth at Bishop's Stortford.</p> | <p>Whilst Option 8 could support significant employment the DTZ study identified the relative lack of attraction of the Gilston area for a strategic business park due to distance from the M11. It also drew attention to competition with the Harlow Enterprise Zone. However, the A414 east-west is a key strategic corridor; albeit congestion is a consideration.</p> <p>Given the existing high level of out-commuting, a high growth option would need to create considerable new employment opportunities to counter this or at least retain the status quo. The approach to a Broad Locations DPD potentially enables new employment and mixed-use development in locations close to the A414, subject to satisfactory resolution of the transport impacts.</p> |
| <p>Historic Environment</p> | <p>Historic assets such as scheduled monuments and listed buildings can be protected through sensitive design and layout regardless of the broad spatial strategy. However, if the topic is extended to include the setting of towns then some differentiation between the alternatives is possible. 'Concentration' options would potentially impact places less.</p> <p>On this basis, the options for 5,000 dwellings East of Stevenage, in the Gilston Area, and at a new settlement, are all likely to perform similarly well. Option 7 also performs well on the basis that urban extensions to market towns would be avoided; however, focusing in the Gilston Area would lead to impacts on Sawbridgeworth and would affect the</p> | <p>The preferred sites and broad locations have been selected to minimise impacts on the historic environment. For example, Historic Parks and Gardens have been avoided, as explained in the Supporting Document. Some impact on the setting of towns is inevitable.</p> <p>The Broad Locations DPD will pay careful attention to the treatment of Fanhams Hall.</p> <p>The topic-based policies and settlement-specific policies provide a framework for sensitive treatment of historic assets, for example including buffer areas and incorporating assets within green infrastructure.</p> <p>Finally, it is important to consider that the District Plan is a way to protect the historic character of the District given the threat of 'planning by appeal' at the Market</p> |

| SA Topic | Alternatives appraisal findings | Council response |
|----------------|--|---|
| | original urban form of Harlow. A large urban extension to Ware (Option 2) and Sawbridgeworth (Option 3) would be out of character. Under the preferred approach North and East of Ware (1,800) there will be a need to pay careful attention to historic assets, e.g. Fanhams Hall. | Towns without a plan in place. |
| Housing | Options which achieve a spread of housing across the housing market areas to meet need within each area perform better. Options 1 and 8 could meet the needs of two wider housing market areas including settlements outside the district, whereas Options 2, 3, 4, 5, and 7 have the potential to meet the needs on only one, and Option 6 (new settlement) could meet the needs of none. Option 8 (high growth) would deliver most housing in addition and also potentially meet the needs of another area and therefore performs best. Option 7 (focus on the Gilston Area and avoid urban extensions to market towns) performs worst. | The Interim Development Strategy Report includes a section on the Duty to Co-Operate which looks at the issue of unmet housing need across district boundaries. East Herts Council will need to work with Stevenage and North Herts Councils to assess suitable long-term growth locations to meet Stevenage's needs beyond 2031. Further discussions will be needed with Harlow and Welwyn Hatfield Councils in relation to unmet needs and the proposed Broad Locations. |
| Land | All options would require significant release of greenfield sites since the supply of brownfield and other urban land is very limited. All options except Option 6 require extensive release of Green Belt sites. Therefore Option 6 performs best (on the assumption that a new settlement would be located outside the Green Belt). Option 7 would require the next least amount of Green Belt release although this is a highly significant part of strategic Green Belt including the | Option 6 (new settlement) is not considered realistic at this stage, since the land is not proposed in most cases and in all cases the infrastructure planning has not yet even reached infancy. Paragraph 84 of the NPPF requires local planning authorities to take account of the need to promote sustainable patterns of development when reviewing Green Belt boundaries. It is acknowledged that all options would result in the loss of Grade 2 Agricultural Land. Within each classification |

| SA Topic | Alternatives appraisal findings | Council response |
|-------------------------|---|--|
| | <p>Stort Valley. Option 8 would require the most Green Belt release and therefore ranks worst. All options would result in loss of areas of Grade 2 agricultural land.</p> | <p>there are pockets of good and poor quality agricultural land. It is therefore necessary to ensure the DPD approach makes provision for the assessment of specific sites, mitigation measures and improvements to adjacent land where necessary.</p> |
| <p>Landscape</p> | <p>Key considerations are the quality and openness of the landscape, taking account of the Landscape Character Assessment (2007).</p> <p>Option 7 performs best because it concentrates development away from the majority of character areas, although impacts in the Gilston Area would be significant. A new settlement (Option 6) could choose a site to limit landscape impacts, although this would need to be subject to site-specific assessment. Other options are all likely to encroach into some attractive open countryside. East of Stevenage (Option 4) performs poorly due to impact on the sensitive Beane Valley.</p> | <p>The Council acknowledges that there will be unavoidable landscape impacts given the scale of the housing requirement. There is no reasonable alternative that would avoid impacts, and some would lead to impacts over and above the preferred approach. The preferred approach protects the most valuable landscape areas, for example the Beane Valley and the Stort Valley.</p> <p>District Plan policies require that design and layout, masterplanning, green infrastructure and landscaping minimise the impacts as much as possible.</p> <p>The Broad Locations DPD will need to give careful consideration to these issues as part of a masterplanning exercise.</p> <p>Additional site-specific impacts the Council is aware of include the sloping landscape south of Bishop's Stortford.</p> |
| <p>Transport</p> | <p>Larger developments (i.e. those of at least 5,000 homes) providing more services and facilities, and those better linked into existing settlements, are more likely to be self-contained, reducing the need to travel by car.</p> <p>Option 7 concentrates development at a 10,000 home development and so performs best in some respects. A</p> | <p>The feasibility of self-containment will need to be explored further through the District Plan. The separate transport assessments (see the Transport Update, November 2013) draw attention to the impacts of additional traffic on the network. The SA provides a different perspective.</p> <p>The Broad Locations DPD introduces safeguards which</p> |

| SA Topic | Alternatives appraisal findings | Council response |
|---------------------|---|---|
| | <p>concentration of growth in the Gilston Area (Option 5) is preferable to East of Stevenage (Option 4) in terms of connectivity. Options 1 and 2 are not ideal in that it they would not concentrate development to a great extent, i.e. no single 5,000 home development is proposed. However, these options have the potential to create developments that are well-connected to existing towns and services. Sawbridgeworth (Option 3) is a small town with low potential for significant self-containment, even with a bypass. A distinct new settlement (Option 6) distant from other towns and (most likely) a railway station is assumed to perform poorly.</p> | <p>mean that very large options will not come forward until a robust framework for managing the transport impacts is in place.</p> <p>Deliverability of transport issues is a difficult issue for plan-making. Working with Hertfordshire and Essex County Councils and the Highways Agency, the Council will undertake a number of additional studies to further assess transport impacts prior to the submission stage.</p> |
| <p>Water</p> | <p>There may be greater potential for sustainability features including rainwater harvesting at very large sites. Option 7 performs well on this basis. Option 8 would result in a greater level of development and so could cancel out this efficiency gain.</p> | <p>The Council has worked closely with the Environment Agency and the water companies on the issue of the environmental impacts of low-flows in rivers. Water supply is a national policy issue involving a trade-off between the consumer price of water (championed by OFWAT) and the environmental impacts (championed by the Environment Agency). This trade-off can only be addressed at the national level. The Council proposes to introduce water efficiency requirements through the District Plan to address this issue as far as the remit of the local planning authorities allows. The Council is not aware of any cases where the Planning Inspectorate has reduced levels of development because of water supply concerns.</p> |

Table 11.4: Key findings for each option and the Council's response

| Option | Key appraisal findings | Council Response |
|--|--|--|
| 1: Preferred Option | This option (the preferred approach) would result in some negative impacts on the landscape North and East of Ware and in the Gilston Area (as well as at some of the locations allocated for housing surrounding the market towns). Some negative impacts on air quality are also likely. Importantly, this option would enable the benefits of development, including new jobs as well as homes, to be spread around the District where they are needed. | It is acknowledged that there will be some negative impacts associated with implementing the preferred option; however, these are outweighed by the benefits. In terms of air quality, the Council will work with Environmental Health and Transport authorities to further understand the impacts and potential mitigation measures. The commitment to a Broad Locations DPD provides a safeguard to ensure that appropriately detailed assessment of the impacts is undertaken. It is important to remember that the development strategy has to comply with NPPF policy requirements including the Duty to Co-Operate and the five year housing land supply. These requirements can only be met by the preferred option. |
| 2: Focus on Welwyn Garden City and Ware | This option would have some advantages because it would avoid the negative landscape impacts of development in the Gilston Area; however, the landscape impacts would be significant North and East of Ware. | Whilst there could be benefits to this option and it could be considered realistic in some respects, it would not comply with the Duty to Co-Operate in relation to Harlow District Council because it does not include the Gilston Area. The deliverability of 3,000 dwellings North and East of Ware will need further assessment through the Broad Locations DPD. |
| 3: Focus on Welwyn Garden City and Sawbridgeworth | A large extension West of Sawbridgeworth would not be self-contained, and would likely result in many car-based trips to Bishop's Stortford and Harlow. It is a | This confirms the decision of the Council to drop the 'West of Sawbridgeworth' option from the selected development strategy. Also, as with Option 2, this |

| Option | Key appraisal findings | Council Response |
|-------------------------------------|--|---|
| | relatively unattractive location for new employment; and landscape impacts would be similar to those for the Gilston Area. | option does not involve growth in the Gilston Area and hence would fail when assessed against the Duty to Co-Operate. |
| 4: Focus on Stevenage | East of Stevenage could help to address some of Stevenage’s unmet housing need; however, it would have highly negative impacts on the sensitive Beane Valley landscape and would be less self-contained than the Gilston Area owing to the greater distance from the railway station, town centre and main employment areas. | This confirms the conclusions of Chapter 4 of the Supporting Document. Land in North Herts is beyond the scope of this sustainability appraisal, but it is clear that East Herts Council will need to continue to discuss Stevenage’s long-term housing needs and growth aspirations (beyond 2031) with Stevenage and North Herts Councils. |
| 5: Focus on the Gilston Area | A larger development in the Gilston Area could be better self-contained and provide a wide range of community infrastructure. It would also remove the need for an urban extension at Ware which could be out of character with this small town. However, this option would not meet housing needs in the A10 Corridor Housing Market Area, in particular for Ware, and potentially also in the A1(M) Corridor. | This option would fail when assessed against the Duty to Co-operate in relation to Welwyn Hatfield Borough because the area is needed for a new secondary school to help provide additional schools capacity for Welwyn Garden City. This option would also risk not being able to find an appropriate location for school sites in the Hertford-Ware catchment area. It is questionable whether a development in the Gilston Area of 5,000 homes is deliverable by 2031. |
| 6: Focus on a new settlement | Potential benefits of a new settlement in a transport corridor could in theory encourage self-containment, and the ability to relieve some of the pressure on air quality and the transport network in the busier southern parts of the district. However, this would largely depend upon its location and opportunities for bus and rail connectivity. Without such connectivity, this option has the potential to result in greater levels of out-commuting by car. A new settlement option of | Policy DPS6: Long-term Planning commits the Council to further assessment of this option, in part as a contingency measure in the event that the Broad Locations DPD cannot resolve the challenges to development at those locations. |

| Option | Key appraisal findings | Council Response |
|--|--|--|
| | 5,000 homes may not be sufficient to enable high levels of self-containment. | |
| 7: Focus on the Gilston Area, avoiding extensions to market towns | This option would mean that the impact of development on the landscape and historic character of the market towns would be lessened. It would also provide a self-contained development in the Gilston Area and reduce the air quality impacts. However, it would also mean that existing residents would not benefit from new community infrastructure (such as new schools and other community facilities) and additional local employment opportunities. The provision of the new Panshanger County Park and the remediation of the despoiled land north of Welwyn Road West of Hertford would be less likely to be achieved. Housing needs would not be met locally (i.e. near to the town where they arise), and some logical sites would not come forward. | Whilst the potential sustainability benefits of this option are acknowledged, it would not meet NPPF requirements in terms of the five-year housing land supply in the period 2016-2021. The scale and pace of development in the Gilston Area could not match the speed of delivery from multiple smaller urban extensions early in the plan period, since these latter locations can be brought forward simultaneously by different developers and do not rely on the provision of expensive infrastructure. |
| 8: High growth at Welwyn Garden City, Ware, and the Gilston Area | Positives include the delivery of greater amounts of community infrastructure and services, potential for clean energy generation, and higher levels of self-containment. There would be a negative impact on the landscape in the Gilston Area and North and East of Ware (as well as at some of the locations allocated for housing surrounding the market towns). | Whilst higher levels of development could in theory have some benefits, there are major question-marks surrounding the deliverability of such an approach. Detailed discussion on this matter is presented within the Supporting Document and the Interim Development Strategy Report. Whilst the current conclusion is that there is insufficient certainty regarding deliverability of higher levels of growth, further work will need to be done prior to submission in order to confirm this. |

PART 3: WHAT ARE THE APPRAISAL FINDINGS AND RECOMMENDATIONS AT THIS CURRENT STAGE?

12 INTRODUCTION (TO PART 3)

- 12.1.1 The aim of Part 3 is to present appraisal findings and recommendations in relation to the current preferred approach i.e. that presented within the preferred options consultation document.

13 APPRAISAL OF THE DRAFT PLAN

13.1 Methodology

- 13.1.1 The appraisal is structured under eleven 'sustainability topic' headings. For each topic the sustainability issues/objectives (as identified through scoping) are listed. Taken together, the sustainability topics and issues/objectives provide a methodological 'framework' for the appraisal of likely significant effects on the baseline.

- 13.1.2 Every effort is made to predict effects accurately; however, this is inherently challenging given the high level nature of the plan. The ability to predict effects accurately is also limited by understanding of the baseline. Because of the uncertainties involved there is inevitably a need to make assumptions. Assumptions are made cautiously, and explained in full within the text.⁵⁹ In many instances, given reasonable assumptions, it is not possible to predict significant effects, but it is possible to comment on the plan's merits in more general terms.

- 13.1.3 It is important to note that effects are predicted taking into account the criteria presented within Schedule 1 of the SEA Regulations.⁶⁰ So, for example, account is taken of the probability, duration, frequency and reversibility of effects as far as possible. Cumulative effects are also considered (i.e. where the effects of the plan may combine with the effects of other planned or on-going activity that is outside the control of the East Herts Local Plan).

Added structure

- 13.1.4 Although there is a need to focus on the effects of 'the plan' as a whole, it is helpful to break-up the appraisal with sub-headings. Three sub-headings are used under each 'topic' heading:

- 1) Appraisal of the development strategy
 - As established through the 'strategy' policies presented in Chapter 3 of the consultation document, and the area specific policies established in Chapters 5 – 12.
- 2) Appraisal of the topic policies
- 3) Appraisal of the plan as a whole

⁵⁹ As stated by Government Guidance (The Plan Making Manual, see <http://www.pas.gov.uk/pas/core/page.do?pageld=156210>): "Ultimately, the significance of an effect is a matter of judgment and should require no more than a clear and reasonable justification."

⁶⁰ Environmental Assessment of Plans and Programmes Regulations 2004

13.2 Air quality

Sustainability issues/objectives

- Improve air quality in AQMAs and other areas exceeding air quality objective levels.
- Protect problem areas / areas of known sensitivity from traffic congestion and polluting activities.

Appraisal of the development strategy

- 13.2.1 **DPS2** (The Development Strategy 2011-2031) and **DPS3** (Housing Supply 2011-2031) seek to follow an ambitious growth strategy (allocations for 3,950 homes, in addition to 247 homes that will come forward in the urban area through other sources of supply) at Bishop's Stortford, in-light of employment and retail opportunities and the fact that the town is in a number of ways less constrained than other towns in the district. The town is, however, constrained in terms of air quality with one of the district's three Air Quality Management Areas (AQMAs) to be found at Hockerill Lights. The other two AQMAs in the district are located at London Road in Sawbridgeworth (allocations for 400 homes) and at the Mill Road/A414 roundabout in Hertford (allocations for 750, in addition to 451 homes that will come forward in the urban area through other sources of supply).
- 13.2.2 Growth directed to Bishop's Stortford, Sawbridgeworth and Hertford is a key consideration; however, traffic congestion (the key driver of poor air quality within the AQMAs) within these towns could also be worsened as a result of development elsewhere along the A1184 (Sawbridgeworth and Bishop's Stortford) or A414 (Hertford) corridors. In this respect it may be that the decision to identify Broad Locations in the Gilston Area (3,000 homes over the plan period, which could lead to traffic moving north along the A1184 in the direction of Stansted) and East of Welwyn Garden City (450 homes over the plan period, which could lead to traffic moving east along the A414) is less than ideal. However, it is recognised that this approach to growth at these Broad Locations is not as ambitious as it might have been (particularly East of Welwyn Garden City) and that further work will focus on identifying and seeking to mitigate traffic impacts.
- 13.2.3 **DPS4** (Broad Locations for Development) requires that a 'delivery strategy' be put in place for each Broad Location, which in turn must reflect "*a robust transport assessment which demonstrates that the likely residual cumulative impacts on the highways network would not be severe, taking account of proposed mitigation measures across the network*".
- 13.2.4 **DPS5** (Infrastructure Requirements) identifies key infrastructure schemes needed over the Plan period to support the levels of growth envisaged. Four of the seven infrastructure upgrades listed relate to the road network and two of these will have a direct impact on traffic flow/congestion in town centres - improvements to the A414 through Hertford and the Little Hadham Bypass. The former scheme will have positive implications for air quality; as could the

latter, although it is not thought that air quality is an issue currently in Little Hadham. Noise and other environmental quality benefits could also result.

13.2.5 **DPS6** (Long-Term Planning) commits to working with partners including Hertfordshire County Council and the Local Enterprise Partnership (LEP) to explore strategic-scale (3,000+ homes) development options to meet long-term development needs. Strategic scale development that is well planned, with adequate transport infrastructure in place, should have the potential to support reduced need for travel by private car; however, it is noted that ‘self-containment’ will be achieved only to a limited extent with developments of circa 3,000 homes.

13.2.6 **BISH** (Bishop’s Stortford) policies are key from an air quality perspective. **SAWB** (Sawbridgeworth) and **HERT** (Hertford) policies are also important.

- **BISH3** (The Goods Yard) requires that: *“On-site car parking will be minimised, to avoid worsening of town centre traffic congestion and the impact on the Hockerill Air Quality Management Area.”*
- **BISH2** (The Mill Site), **BISH4** (The Causeway/Old River Lane) and **BISH8** (North of Bishop’s Stortford) also make reference to specific measures that should be put in place with a view to achieving desired transport patterns. However, **BISH5** (Reserve Secondary School Site), **BISH6** (East of Manor Links) and **BISH7** (South of Bishop’s Stortford) establish generic (i.e. non-site specific) requirements regarding ‘sustainable transport’ measures.
- **BISH7** (South of Bishop’s Stortford) and **BISH8** (North of Bishop’s Stortford) both require delivery of a new neighbourhood centre, which should help to ensure trips by car into the town centre are minimised.
- **BISH9** (Essential Off-Site Infrastructure) establishes that, with a view to avoiding cumulative effects from development at numerous sites, development proposals in Bishop’s Stortford will be permitted subject to the provision of financial contributions towards infrastructure schemes including improvements to traffic control and air quality at Hockerill lights.
- **SAWB3** (Land to the south of West Road) goes beyond a generic requirement by stating that there must be “sustainable transport measures including the encouragement of walking and cycling, in particular to the town centre and railway station...” [emphasis added]. **SAWB2** (Land North of West Road) establishes a generic requirement.
- **HERT3** (West of Hertford) and **HERT5** (South of Hertford) identify specific measures that should be put in place with a view to achieving desired transport patterns; however, **HERT4** (North of Hertford) sets out generic (i.e. non-site specific) requirements.

Appraisal of the topic policies

13.2.7 **TRA1** (Sustainable Transport) seeks to ensure good ‘accessibility’ and promote ‘sustainable transport’. Point ‘**C**’ lists a series of measures that might be put in place to *“ensure that a range of alternative transport options are*

available to occupants or users". This list is helpful on the assumption that it will be used to 'amplify' the generic requirement (made through eight of the site specific policies, including three at Bishop's Stortford) for "sustainable transport measures including the encouragement of walking and cycling, enhanced passenger transport services". Point 'E' is also beneficial: "In the construction of major schemes, allow for the early implementation of sustainable travel infrastructure or initiatives that influence behaviour to enable green travel patterns to become established from the outset of occupation".

- 13.2.8 **TRA3** (Vehicle Parking Provision) is also important from a perspective of reducing car dependency / supporting more 'sustainable' travel patterns. The requirement for certain developments to include "sufficient secure, covered and waterproof cycle and, where appropriate, powered two-wheeler storage facilities... positioned in easily observed and accessible locations" should lead to benefits. There is also a (less stringent) requirement for certain developments to include "charging points for low and zero carbon vehicles".
- 13.2.9 **EQ4** (Air Quality) applies to development that may impact upon AQMAs, encouraging promoters to have regard to the latest urban transport plan, which in turn, aim to reduce the amount of vehicle movements and increase the amount of journeys made by walking, cycling and public transport. This policy should effectively supplement the 'transport' policies and site specific policies.

Appraisal of the draft plan 'as a whole'

- 13.2.10 The broad spatial strategy, viewed in isolation, does give rise to a risk of increased traffic congestion in Bishop's Stortford, Hertford and Sawbridgeworth; all of which are towns with designated Air Quality Management Areas (AQMAs). As such, **significant negative effects** are predicted in terms of air quality. However, this prediction is made with a considerable degree of uncertainty. It is recognised that:
- Further detailed transport assessment work will be undertaken prior to any decision to allocate land for development at the Broad Locations in the Gilston Area and East of Welwyn Garden City, and as such it may be that traffic congestion impacts can be avoided to a degree;
 - The forthcoming Bishop's Stortford and Sawbridgeworth Urban Transport Plan will provide further evidence in respect of possible mitigation measures to address the cumulative impacts of development along the A1184 corridor (including the possibility of a Park and Ride facility);
 - The policy approach at each of the site allocations in Bishop's Stortford reflects the need to minimise car trips into the town; and the 'topic policies' set to be implemented will also help to support measures to encourage walking, cycling and public transport / minimise car dependency.

13.3 Biodiversity and green infrastructure

Sustainability issues/objectives

- Protect and enhance areas designated for nature conservation including key biodiversity areas and Local Wildlife Sites.
- Plan for multi-functional green infrastructure at different scales, including within major developments and across administrative boundaries.

Appraisal of the development strategy

13.3.1 **DPS2** (The Development Strategy 2011-2031) and **DPS3** (Housing Supply 2011-2031) reflect a desire to “*prioritise the development of brownfield land and other appropriate sites within the urban areas of the settlements, but to avoid over-development of such sites*”. The outcome is a need to: 1) allocate greenfield land on the edge of Bishop’s Stortford, Buntingford, Hertford and Sawbridgeworth; and 2) identify greenfield Broad Locations in the Gilston Area, North and East of Ware and East of Welwyn Garden City. This clearly gives rise for the potential for direct impacts to biodiversity, and it is also important to bear in mind that settlement edge greenfield locations are important on the basis that they are to some extent accessible to residents of the towns. Having said this, it is not thought likely that areas designated as being of particular biodiversity importance will be directly impacted. For example:

- North of Bishop’s Stortford (where land is allocated for 2,600 homes) will avoid impacting on the Green Wedge, preserving the features of Ash Grove and Hoggate’s Wood; and
- East of Welwyn Garden City (broad location for 450 homes over the plan period) should avoid impacting the locally-designated areas of woodland to the north and east (given the potential for these woodlands to be incorporated within a ‘landscape buffer’). Also, development here and to the west of Hertford (where land is allocated for 550 homes) will lend support to the Panshanger Country Park initiative.

13.3.2 Another consideration is the potential for the growth strategy to impact more indirectly on biodiversity. In particular, it is important to consider the potential for traffic generated by new development at Hertford, Ware and (to some extent) East of Welwyn Garden City to lead to increase traffic movements on the A10 and therefore impact on the Broxbourne Hoddesdonpark Woods SAC (part of which falls within 200 metres of the A10). The ambitious growth proposals North and East of Ware (broad location for 1800 homes over the plan period) give rise to some concern; however, it is recognised that further work to assess transport implications will precede a final decision on growth in this area.

13.3.3 It is also important to note that the Stort Valley north of Harlow is a sensitive environment from a biodiversity perspective. Work has been ongoing for a number of years to consider how green infrastructure could be effectively

integrated as part of development, with the Harlow GI Plan (2005) identifying this area to be associated with *“a major opportunity for developing a series of multi-functional and connected green spaces managed for wildlife, access and recreation on Harlow’s doorstep.”* The scale of growth proposed (broad location for 3,000 homes over the plan period) should enable good potential to avoid development of more sensitive areas / design in suitable green infrastructure.

- 13.3.4 **DPS4** (Broad Locations for Development) requires that a *“A location-wide masterplan must be prepared in collaboration with landowners, local communities, the Council and other key stakeholders and be consistent with CABE Design Council’s ‘Creating Successful Masterplans’ Guidance or replacement guidance to be agreed by the Council.”* It is assumed that the nature conservation groups will be involved as ‘key stakeholders’.
- 13.3.5 **DPS6** (Long-Term Planning) commits to working with partners including Hertfordshire County Council and the Local Enterprise Partnership (LEP) to explore strategic-scale (3,000+ homes) development options to meet long-term development needs. Strategic scale development would likely be located in an area that is less sensitive from a biodiversity perspective (i.e. open farmland) and there should be good potential to design-in high quality green infrastructure. A new settlement might well be located so as to encourage east-west trips (including commuting for work); however, it is recognised that north-south trips (and hence pressure on the A10) might also be likely.
- 13.3.6 Eleven (i.e. most) of the site specific **BISH, BUNT, EWEL, HERT, SAWB, GA,** and **WARE** policies include a generic requirement for *“quality local green infrastructure through the site including opportunities for preserving and enhancing on site assets, maximising opportunities to link into existing assets and enhance biodiversity”*. **HERT3** (West of Hertford) goes further by referencing the need to protect named Local Wildlife Sites (and other woodland sites), whilst **HERT5** (South of Hertford) requires *“the provision of a public amenity greenspace buffer between the development and Hagsdell Stream to allow for the preservation of that part of the Hertford Green Finger”*.

Appraisal of the topic policies

- 13.3.7 **NE2** (Species and Habitats) is notable in that it builds on national policy to reflect the East Herts context. The policy is clear about the need to protect *“Locally important biodiversity sites and other notable ecological features of conservation value”* and also *“trees, hedgerows or ancient woodland sites”*. Point ‘IV’ helpfully refers to the need for development proposals to demonstrate improvements to ‘the biodiversity value’ and ‘nature conservation interest’ of sites. This wording reflects the need to value sites as components of a wider ecological network / coherent natural landscape, as opposed valuing sites in isolation. The policy also helpfully identifies that the Council will look favourably on proposals that seek to establish local nature reserves.

Influence of earlier SA

An earlier working draft version of the consultation document including a reference to 'landscape quality' within Policy NE2. An SA recommendation was made that "The reference to enhancing 'landscape quality' could perhaps either be expanded upon (to reflect the importance of considering the biodiversity of a site in the context of the wider landscape) or removed. On the basis of this recommendation, the reference was removed.

At this current stage, it is **recommended** that NE2 (Species and Habitats) be revisited to ensure that it is clear and implementable. If point 'V' is concerned with compensation, then this should be made clear. The Council might wish to make reference to Defra's biodiversity offsetting metric and particular instances where its application might be appropriate.

- 13.3.8 **NE3** (Green Infrastructure) includes a helpful reference to the importance of reflecting the ambitions of named statutory and non-statutory plans for the water environment. It is noted that a cross reference to the ambitions of NE3 is made within policy HOU2 (Housing Density).
- 13.3.9 **CFLR1** (Open Space, Sport and Recreation) and **CFLR7** (Community Facilities) both state that proposals should provide 'net benefits to biodiversity'. These policies are the only ones to reference this concept. This is deemed appropriate (as the idea of net benefits can cause confusion).
- 13.3.10 **CFLR3** (Local Green Space) establishes that: "*Development will not be allowed within Local Green Spaces, as defined on the Policies Map, other than in very special circumstances.*" This policy is important in the East Herts context given the value (amenity, wildlife and leisure) of the 'green fingers' in Hertford and Bishop's Stortford, which are designated as Local Green Spaces. The supporting text is also clear that local communities, through Neighbourhood Plans, can also identify green areas of particular importance to them for special protection.
- 13.3.11 **CFLR4** (Water Based Recreation) reflects the importance of ensuring developments do not harm the vulnerable and valuable riparian environment.
- 13.3.12 **WAT4** (Sustainable Drainage) helpfully states that: "*Drainage should be designed and implemented in ways that deliver other policy objectives of this Plan, including water use efficiency and quality, biodiversity, amenity and recreation.*" The target of achieving 'greenfield run-off rates' and the requirement to "ensure that surface water run-off is managed as close to its source as possible" should help to ensure a proactive approach is taken.
- 13.3.13 **DES1** (Local Character and Amenity) requires that: "*Development proposals which create new or have a significant impact on the public realm should maximise opportunities for urban greening, for example through planting of trees and other soft landscaping wherever possible.*" Implementation of such

measures will help to support the functioning of the green infrastructure network.

- 13.3.14 **HA8** (Historic Parks and Gardens) may help to support biodiversity given that these areas comprise a variety of features such as landscaped parkland, planted gardens and open water features; however, it is noted that no specific cross-reference is made to the achievement of biodiversity objectives.

[Appraisal of the draft plan ‘as a whole’](#)

- 13.3.15 The broad spatial approach to growth performs well from a biodiversity perspective. The most sensitive locations are avoided, the scale of growth at some locations reflects the need to ‘work around’ and integrate (within green infrastructure) biodiversity assets, and growth is also proposed where it has the potential to support the delivery of biodiversity enhancement initiatives (e.g. country park initiatives at Pangshanger and north of Bishop’s Stortford). On this basis, **significant negative effects are not predicted**. On a more local scale, there will be some significant negative effects, but also significant positive effects. In terms of the approach to site specific and area-wide ‘topic’ policy, the proposed approach is adequate; however, it is suggested that there could be some greater potential to set policy to ensure that the district’s Green Infrastructure Plan is fully reflected.

13.4 Climate change

[Sustainability issues/objectives](#)

- Aim to lower per capita GHG (greenhouse gas) emissions.
- Increase energy generation from decentralised or renewable sources.
- Minimise the impact of development on surface water flooding and avoid development within areas of flood risk.
- Support water efficiency and energy efficiency.

N.B. The discussion below focuses on: **1)** climate change mitigation through reduced ‘built environment’ related carbon emissions; and **2)** flood risk. The other key climate change mitigation issue - the need to minimise transport related carbon emissions - is discussed in detail under the ‘transport’ topic heading. Other climate change adaptation issues are discussed under other topic headings, in particular the ‘communities and well-being’ topic.

[Appraisal of the development strategy \(mitigation\)](#)

- 13.4.1 **DPS2** (The Development Strategy 2011-2031) and **DPS3** (Housing Supply 2011-2031) seek to allocate land for a number of developments of 500+ homes⁶¹ and identify three broad locations for strategic scale development. Development at this scale should lead to good opportunities for designing-in district heating schemes. Smaller developments may also have the potential

⁶¹ Bishop’s Stortford North, 2600 home; Bishop’s Stortford South, 1000 home; and Hertford West, 550 home

to design-in district heating; however, schemes that lead to the greatest carbon reductions⁶² only tend to be viable in larger (500+ home) schemes.

- 13.4.2 **DPS4** (Broad Locations for Development) does not refer specifically to district heating; however, it does establish that for each Broad Location: *“A location-wide masterplan must be prepared in collaboration with landowners, local communities, the Council and other key stakeholders and be consistent with CABE Design Council’s ‘Creating Successful Masterplans’ Guidance or replacement guidance to be agreed by the Council.”*
- 13.4.3 **DPS6** (Long-Term Planning) commits to working with partners including Hertfordshire County Council and the Local Enterprise Partnership (LEP) to explore strategic-scale (3,000+ homes) development options to meet long-term needs. Development at this scale will lead to excellent potential to design-in low carbon decentralised energy generation and district heating.
- 13.4.4 **BISH2** (The Mill Site), **BISH3** (The Goods Yard), **EWEL1** (Land East of Welwyn Garden City), **GA1** (Land in the Gilston Area) and **WARE3** (Land North and East of Ware) all require ‘district heating’. In each case no further elaboration is given as to requirements. This approach would appear to reflect the findings of the Hertfordshire Renewable & Low Carbon Strategy (2010), which identified high heat demand areas at Hertford/Ware and Bishop’s Stortford.

Appraisal of the development strategy ([adaptation](#))

- 13.4.5 **DPS2** (The Development Strategy 2011-2031) and **DPS3** (Housing Supply 2011-2031) seek to avoid development in areas at risk of flooding; however, it is inevitably the case that development on this scale can lead to increased run-off and hence increased flood risk and it is the case that growth is allocated to towns (e.g. Hertford) that sit within river valleys. The location of the Broad Location in the Gilston Area (adjacent to the Stort Valley) is another consideration.
- 13.4.6 **DPS6** (Long-Term Planning) commits to working with partners including Hertfordshire CC and the Local Enterprise Partnership (LEP) to explore strategic-scale (3,000+ homes) development options to meet long-term development needs. It will be possible to find locations for strategic scale development that are optimal from a perspective of wishing to minimise flood risk. Locations for strategic scale growth are likely to be away from the existing towns, which are all located within river valleys (reflecting past economic activities / patterns of land use).
- 13.4.7 The majority of the site specific policies that relate to greenfield locations include a generic requirement for *“sustainable urban drainage and provision for flood mitigation”*.

⁶² Biomass fuelled Combined Heat and Power plants (with district heating piping transferring waste heat to nearby buildings) only become viable in 500+ home developments.

Influence of earlier SA

Appraisal of an earlier working draft version of the consultation document highlighted some apparent inconsistency in the policy approach taken to sustainable urban drainage and provision for flood mitigation across the various site allocations. On the basis of this recommendation, the policy approach was reviewed.

Appraisal of the topic policies ([mitigation](#))

- 13.4.8 **CC2** (Climate Change Mitigation) requires that all developments go “*above and beyond the requirements of Building Regulations*” in terms of carbon emissions. This approach is thought to be deliverable in East Herts, i.e. it is not likely that this approach will lead to problems of development viability.
- 13.4.9 **CC3** (Renewable and Low Carbon Energy) complements CC2 by requiring that: “*All new development of more than 10 dwellings or 1,000m² of non-residential floorspace must produce at least 10% of the total predicted energy requirements from on-site renewable technologies or decentralised renewable sources unless it can be demonstrated that this is not feasible or viable.*”

Influence of earlier SA

Appraisal of an earlier working draft version of the consultation document led to the following recommendation:

It is recommended that the following statement within the supporting text is reviewed: “*Some renewable forms of energy used for heating may, cumulatively or in isolation, result in a rise in particulates which can be harmful to human health. For this reason such technologies will not be permitted within or near the urban areas of settlements, as explained in Policy EQ4 (Air Quality) (see Chapter 22: Environmental Quality).*” A more flexible policy approach may be appropriate. It is important to support renewable / low carbon energy schemes where they are able to demonstrate that no impacts to air quality / human health will occur.

The Council’s response was to highlight that human health is a key consideration. The wording has since been altered to a degree.

- 13.4.10 **HA1** (Heritage Assets), **HA2** (Non-Designated Heritage Assets), **HA4** (Conservation Areas) and **HA7** (Listed Buildings) are also noteworthy. Heritage assets such as Listed Buildings and properties in Conservation Areas are much harder and more costly to install energy saving features such as double-glazing, cavity wall or loft insulation. There are also more constraints in the installation of renewable energy technology such as solar panels or micro-turbines. There are a large number of heritage assets in the District, including conservation areas and listed buildings, which reduces the potential to make reductions in the carbon footprint of the existing building stock, at least in the short term. The heritage policies do not set out to proactively address this issue; however, as technologies improve over time, and installations become the norm, there will be more opportunities to retrofit existing properties, including heritage assets, with energy-saving and low carbon technology. The policies are designed to enable alterations to such

buildings provided there is no adverse effect on the architectural and historic character or appearance of the building or setting.

- 13.4.11 **DES1** (Local Character and Amenity) requires that development “*Embrace high quality innovative design, new technologies and construction techniques, including zero or low carbon energy and water efficient, design and sustainable construction methods*”.

Appraisal of the topic policies ([adaptation](#))

- 13.4.12 **WAT1** (Flood Risk Management) includes the policy ambition to return developed flood plain to greenfield status (with an enhanced level of biodiversity) where possible is notable for going beyond national policy, and in this way looks to amplify national policy; however, it is assumed that the likelihood of this happening ‘on the ground’ to any great extent is low.

- 13.4.13 **WAT4** (Sustainable Drainage) requires applications of the ‘Sustainable Urban Drainage System (SUDS) hierarchy’ and states that: “*Development should aim to achieve Greenfield run-off rates and ensure that surface water run-off is managed as close to its source as possible.*”

- 13.4.14 **NE3** (Green Infrastructure) recognises that ‘combating climate change’ is a role of green infrastructure, with the supporting text making reference to “*cleaning and cooling the air, preventing flooding [and] providing stepping stones for wildlife*”. The policy also suggests that development proposals might consider “*the integration of green infrastructure into proposals as an alternative or to compliment grey infrastructure*”. The supporting text elaborates on this by highlighting that: “*Such schemes can provide opportunities for flood attenuation and public open spaces and can often be cheaper to construct and maintain.*”

Appraisal of the draft plan ‘as a whole’ ([mitigation](#))

- 13.4.15 The broad spatial approach to growth reflects a desire to support larger developments, where there will be the potential to fund and design-in decentralised energy generation / district heating schemes; however, detailed policy guidance is limited. If it is not appropriate for the Local Plan to provide detailed policy guidance (given the evidence-base available) it will be important that this is provided through the Broad Locations DPD.

- 13.4.16 The policy approach to ensuring climate change mitigation measures are reflected in development more generally (through energy efficiency measures and small scale renewable energy schemes) is suitably ambitious. In particular, it is noted that the District Plan will seek to roll forward the East of England plan requirement that larger developments meet at least 10% of the total predicted energy requirements from on-site renewable technologies or decentralised renewable sources. Given that new developments that are relatively ‘low carbon’ will often replace older buildings that do not perform well in this respect, it should be the case that carbon emissions from the built environment fall over time.

13.4.17 Overall, although it is **not possible to conclude significant effects** on the baseline, the proposed approach performs well in terms of climate change mitigation objectives.

[Appraisal of the draft plan ‘as a whole’ \(adaptation\)](#)

13.4.18 The broad spatial approach to growth seeks to avoid development in areas at risk of flooding; however, it is inevitably the case that development on this scale can lead to increased run-off and hence increased flood risk, and it is the case that growth is allocated to towns (e.g. Hertford) that sit within river valleys. The location of Broad Location in the Gilston Area (adjacent to the Stort Valley) is another consideration. The majority of the site specific policies that relate to greenfield locations include a requirement for sustainable urban drainage and provision for flood mitigation. These policies will be implemented inline with WAT4 (Sustainable Drainage) which requires applications of the ‘Sustainable Urban Drainage System (SUDS) hierarchy’ and states that: *“Development should aim to achieve Greenfield run-off rates and ensure that surface water run-off is managed as close to its source as possible.”* **Significant effects on the baseline are unlikely.**

13.5 Community and wellbeing

[Sustainability issues/objectives](#)

- Meet the needs (including health and social care) of a growing and ageing population.
- Plan for those with specialist needs, including the disabled population.

[Appraisal of the development strategy](#)

13.5.1 **DPS2** (The Development Strategy 2011-2031) and **DPS3** (Housing Supply 2011-2031) identify that 3,000 homes should be delivered at a Broad Location in the Gilston Area. The decision to focus growth here somewhat reflects East Herts Council’s acknowledgement of its responsibility to Harlow in terms of the Duty to Co-operate. However, it is not expected that 3,000 home development will have a significant effect in terms of the achievement of regeneration objectives. Harlow Council promotes a vision for the town based on a ‘step-change’ in delivery of development, i.e. feels that regeneration will be achieved once a ‘critical mass’ of development is achieved. Specifically, a critical mass of development would help to rebalance the housing mix and a skilled professional workforce would be attracted by high quality new housing and new employment areas. Development would leverage much needed private sector investment in infrastructure.

13.5.2 Socio-economic deprivation / the need for regeneration is not a major ‘driver’ of the development strategy. However, what is a consideration is the need to meet the needs of current and future residents in terms of access to services and facilities, including the needs of an ageing population. It is on this basis that an ambitious scale of growth is proposed at Bishop’s Stortford (where the road network and town centre show ‘capacity’) and the scale of growth

proposed is limited at Hertford, Buntingford and Sawbridgeworth. At Buntingford it is noted that current applications yet to be determined and others already refused and subject to the appeal process - all made in advance of the District Plan – creates some risk of ‘overdevelopment’ of the town (i.e. development leading to breaching of infrastructure / service provision capacity). The Council’s Supporting Document states that “[T]he Inspector’s decisions on the two appeals to the east of the town may necessitate a review of [the preferred approach], in order to appropriately contain and manage the scale, timing and delivery of development and its supporting infrastructure in Buntingford, in a manner that is proportionate to its size and projected housing need.”

- 13.5.3 A predicted benefit relates to the fact that large schemes are supported, for example at Bishop’s Stortford North and South, and at the three broad locations. These provide opportunities for new employment areas and a range of community facilities to encourage self-containment. They could also offer the potential for local community participation in such measures. West of Hertford is a smaller development, but will complement existing facilities in close proximity, for example the Sele schools and the community centre and shopping parade. The relatively small sites North and South of Hertford, East of Bishop’s Stortford, and North of Buntingford, although not large enough to provide additional community benefits, at least integrate well with the existing built area.
- 13.5.4 **DPS4** (Broad Locations for Development) states that: “A *delivery strategy must include: (c) details of how development would be implemented and managed once occupied (including housing stock and publicly available space); (d) details of land assembly and preparation, infrastructure requirements and delivery; and (e) details of development phasing and likely need for planning obligations (including financial contributions) and/or conditions.*” Carefully planned delivery of the Broad Locations will ensure functioning, vibrant and inclusive communities that foster well-being.
- 13.5.5 **DPS5** (Infrastructure Requirements) identifies key infrastructure schemes needed over the Plan period to support the levels of growth envisaged. Infrastructure provision is critical from a perspective of supporting communities and well-being, and it is noted that DPS5 states that: “*Infrastructure needed to support development must be phased appropriately with the delivery of residential and other development to ensure that capacity is provided and impacts are satisfactorily mitigated in a timely manner.*” It is also noted that ‘secondary schools’ are listed as one of the seven key infrastructure requirements. The centrality of secondary school provision to the preferred spatial strategy is discussed below in relation to Bishop’s Stortford.
- 13.5.6 **DPS6** (Long-Term Planning) commits to working with partners including Hertfordshire County Council and the Local Enterprise Partnership (LEP) to explore strategic-scale (3,000+ homes) development options to meet long-term development needs. Carefully planned delivery of strategic scale

development has the potential to ensure functioning, vibrant and inclusive communities that foster well-being.

- 13.5.7 **BISH1** (Development in Bishop’s Stortford) is clear that the spatial approach to housing development must reflect the location of new secondary school capacity within the town. Options for three potential secondary school sites at allocations to the north and south of Bishop’s Stortford, and at Hadham Road are presented with a view to ensuring the flexibility and hence maximising the likelihood of delivery.
- 13.5.8 Nine of the site specific (**BISH, BUNT, HERT, EWEL, SAWB, GA, and WARE**) policies identify specific elements of ‘social infrastructure’ that must be delivered. It would appear that there is less necessity to require provision of social infrastructure in the town centre locations in Bishop’s Stortford (The Mill Site, The Goods Yard and The Causeway/Old River Lane) and at other (edge of settlement) locations there is a correlation between the scale of housing development proposed and the extent of social infrastructure necessitated.

Earlier influence of SA
 Appraisal of an earlier working draft version of the consultation document highlighted some apparent inconsistency in the policy approach taken to social infrastructure provision across the various site allocations. On the basis of this recommendation, the policy approach was reviewed.

[Appraisal of the topic policies](#)

- 13.5.9 **HOU1 – HOU13** (the housing policies) clearly have implications for meeting housing needs, an issue that is discussed separately below under the ‘housing’ topic heading. In relation to this topic, it is worth making the point that a suitable mix of dwelling types and tenures supports safe and vibrant mixed communities.
- 13.5.10 **RTC1 – RTC5** (the retail and town centre policies) are important from a community perspective (as well as from an ‘economy and employment’ perspective). Town centres in the district provide accessible retail and service opportunities for urban residents as well as a residents of surrounding rural areas. Functioning town centres are particularly important for meeting the needs of those unable to travel to larger centres outside the district, such as the young, old, disabled and disadvantaged. Another consideration is the importance of retaining the offer of rural centres, and in this respect it is important to note that **RTC3** (District Centres, Neighbourhood Centres, Local Parades and Individual Shops) states that: *“Within urban and rural centres, proposals that result in the loss of shops will be considered in accordance with Policy CFLR7 (Community Facilities).”*
- 13.5.11 **DES1** (Local Character and Amenity) seeks to incorporate homes, buildings and neighbourhoods that are flexible to future adaptation depending upon the needs of the occupants or changing employment and social trends. As such, there is a positive effect in terms of accommodating the needs of an ageing

population. High quality design and innovation is also encouraged within the context of respecting the character of the surrounding locations. There is therefore a positive effect in terms supporting distinctive sense of place. DES2 (Crime and Security) supports DES1 in that it seeks to ensure developments are designed to reduce the opportunity for crime, which should lead to benefits in terms of encouraging safe and vibrant communities.

- 13.5.12 **CFLR1** (Open Space, Sport and Recreation) is important from a perspective of contributing to good levels of health, as well as tackling social exclusion and reducing anti-social behaviour. Such spaces can provide opportunities to gather and meet people, which can contribute to a sense of community. CFLR1 is supported by: CFLR2 (Open Space Standards), which focuses on provision 'in conjunction with new residential development'; CFLR3 (Local Green Space); and CFLR4 (Water Based Recreation).
- 13.5.13 It is also noted that these policies are cross referenced in the supporting text to the BISH, BUNT, HERT, SAWB and WARE. For example, reference is made to CFLR1 (Open Space, Sport and Recreation) and CFLR2 (Open Space Standards) in the Bishop's Stortford, Buntingford, Hertford, Sawbridgeworth and Ware Chapters with a view to addressing under provision of sports pitches and/or open spaces more generally; and reference is made to CFLR3 (Local Green Space) in the Bishop's Stortford and Hertford chapters given the importance of protecting the role of green 'fingers'.
- 13.5.14 **NE3** (Green Infrastructure) will also help to ensure high quality accessible open / green space. Access to open space and wildlife has been proven to have positive health effects contributing to a sense of wellbeing. Similarly, the various landscape and historic environment policies will contribute to high quality environments, which in turn will tend to support a higher sense of wellbeing and satisfaction amongst residents. It is certainly the case that historic settings, including Conservation Areas are attractive and cherished locations. Finally, it is worth noting that **WAT4** (Sustainable Drainage) could lead to 'SuDS' that take the form of multi-functional green space with swales or ponds; features which can contribute to recreational amenity space.
- 13.5.15 **CFLR7** (Community Facilities), **CFLR8** (Health and Wellbeing) and **CFLR9** (Education) are also of central importance, as reflected in the fact that they are cross referenced within the Chapters for Bishop's Stortford, Buntingford, Hertford, Sawbridgeworth and Ware. For example, for Bishop's Stortford it is stated that: *"All new development in Bishop's Stortford and the surrounding area will result in an increased demand for local services and community facilities including, for instance, healthcare and education. Development proposals should contribute to the enhancement of existing provision to ensure that both new and existing residents in the town are able to access community facilities and vital services within Bishop's Stortford, thereby reducing the need to travel to other settlements. Reflecting this, development proposals will be considered in accordance with Policies CFLR7 (Community Facilities), CFLR8 (Health and Wellbeing) and CFLR9 (Education)."* The effect should be to ensure that services and facilities are in place that provide for all

the community including the young, disabled and disadvantaged, in locations that are accessible by walking, cycling and public transport. **TRA1** (Sustainable Transport) will support the ambition to ensure that services, facilities and employment are accessible to those who are less mobile.

- 13.5.16 **CC2** (Climate Change Mitigation) will support energy efficient homes, which in turn cost less to run through heating and cooling costs. Through reducing the overall cost of living this can help all residents, particularly the old, disabled and disadvantaged. CC2 may also support residents to benefit from 'green energy' deals, i.e. support home owners to install systems that benefit from financial incentives such as 'feed-in tariffs'.

Appraisal of the draft plan 'as a whole'

- 13.5.17 The broad spatial approach to growth reflects a desire to avoid over developing those towns with limited capacity for town centre expansion. A desire to direct growth to locations with sufficient school capacity is another key driver of the spatial strategy. Furthermore, the spatial strategy reflects a desire to focus on larger developments that will support the parallel delivery of social infrastructure. In terms of the site specific policies and area-wide 'topic' policies, a suitably ambitious approach is proposed. For example, it is clear that the available evidence-base in relation to access to natural green space, open space and sports pitches has been reflected. Overall, the proposals are likely to result in **significant positive effects** on the baseline.

13.6 Economy and employment

Sustainability issues/objectives

- Support targeted job creation, e.g. capitalising on expansion of Stansted Airport.
- Match job creation with the provision of appropriate facilities and infrastructure.
- Support greater rates of gross value added (GVA).

Appraisal of the development strategy

- 13.6.1 **DPS1** (Housing, Employment and Retail Growth) seeks to: *“Maximise opportunities for jobs growth in the district, with the aim of achieving a minimum of 9,700 additional jobs in East Herts. This will include making provision for 11-13 hectares of employment land for B1/B2/B8 uses.”* It is understood that the 9,700 job growth target reflects the findings of an up-to-date evidence-base study; and that the '11-13' hectares figure reflects assumptions regarding the number of new jobs that can be supported per hectare, given that 6,100 of the 9,700 new jobs will be created in the financial and business services sector (and hence will require office premises).
- 13.6.2 **DPS2** (The Development Strategy 2011-2031) and **DPS3** (Housing Supply 2011-2031) together establish an approach of 1) allocating sites where there is a high degree of confidence that they will come forward and hence contribute

to the housing supply; and 2) identifying Broad Locations where the Council accepts the principle of development but there is uncertainty about aspects of the proposals which is significant enough to require further testing through further planning stages. Read alongside **DPS4** (Broad Locations for Development; which seeks to ensure that a DPD is progressed as soon as possible) and **DPS6** (Long-Term Planning; which ensures that options for strategic development at locations other than the three Broad Locations continue to be explored) can be seen to be a positive approach to ensuring housing land supply over long term. In turn, this will provide clarity and certainty for businesses.

- 13.6.3 An ambitious growth strategy is proposed for Bishop's Stortford, where there is potentially a clear economic development strategy based on its existing economic function. Economically, the town is the most important in East Herts, and there is potential to expand the town's employment offer, including through the provision of a new business park within an urban extension with direct access onto the M11 and Stansted Airport. Furthermore, Bishop's Stortford is the town centre that offers the potential for expansion. This could form part of a retail strategy to complement the economic development strategy.
- 13.6.4 The growth strategy for other towns is more restrained, with a view to ensuring that town centres are not 'overwhelmed', not least in terms of traffic congestion. The attractive, historic character the district's town centres is set to be largely preserved although it is recognised that a drawback is that town centres will remain somewhat unattractive to larger chain stores that arguably could attract large numbers of visitors and hence support long-term viability.
- 13.6.5 The other important point to note relates to the decision to identify a Broad Location (3,000 homes) in the Gilston Area. The decision to focus growth here somewhat reflects East Herts Council's acknowledgement of its responsibility to Harlow in terms of the Duty to Co-operate. Development in the Gilston Area could support regeneration in neighbouring Harlow, where Harlow Council promotes a vision for the town based on a step-change in delivery of development. This is discussed further under the 'Communities and wellbeing' topic heading, above.

Appraisal of the topic policies

- 13.6.6 **RTC1 – RTC5** (the retail and town centre policies) are important from an 'economy and employment' perspective (as well as from a 'community and wellbeing' perspective). East Herts benefits from having a large number of independent shops and businesses within its settlements and the retail policies aim to support the viability of these shops by directing retail development to appropriate locations and protecting a central primary shopping area. The policies should help to support entrepreneurial endeavour and small and medium enterprises. The policies are in-line with the ambition to maintain the attractive character of the district's historic centres. The effect will not be to increase the attractiveness to larger chain stores (which arguably

could increase footfall and hence support long-term viability). Small units are not attractive to larger retailers and Conservation Area and Listed Building limitations can prevent changes to footprints and floor space required for modern businesses. Other points to note are as follows:

- HOU5 (Dwellings for Rural Workers) encourages an appropriate level and type of development within the rural area. Housing for rural workers could support rural diversification; whilst at the same time protecting the countryside from inappropriate development.
- HA1 – HA9 (the heritage policies) are designed to enable alterations and changes provided there is no adverse effect on the building or place. This is important given that some heritage assets are converted successfully to attractive businesses such as restaurants or visitor attractions. Having said this, it is recognised that small or start-up businesses may struggle to afford the relatively higher cost of maintaining heritage assets such as properties within Conservation Areas; and such buildings may also not be suitable for the needs of modern businesses.
- EQ2 (Noise Pollution) seeks to direct noise generating developments away from noise sensitive locations. This could discourage economic activity (small and medium enterprises) that involves ‘un-neighbourly’ uses.
- NE1 – NE3 (the natural environment policies) could have positive effects in terms of attracting businesses that value their surroundings. East Herts does not benefit from major transport networks and many major employers, being a more dormitory location for those who work in the larger employment centres surrounding the district; however, what East Herts does have that is attractive to some employers is a high quality natural environment.
- LAN1 (Landscape Character) and DES1 (Local Character and Amenity) will have a similar positive effect.
- DES1 (Local Character and Amenity) could also help to foster entrepreneurial endeavours (including rural diversification). Similarly, in the longer term, if green technology (CC2) is embraced then the effect could be to create a market for innovative technologies, thus creating employment opportunities (and opportunities for farm diversification).

Appraisal of the draft plan ‘as a whole’

- 13.6.7 The broad spatial strategy reflects a desire to support the achievement of established economic objectives at Bishop’s Stortford and Harlow. Elsewhere, a more restrained approach is taken in-light of the objective to maintain the existing function of town centres. This is deemed to be a sound long term strategy. Overall, the proposed approach is likely to lead to **significant positive effects** on the baseline.

13.7 Historic environment

Sustainability issues/objectives

- Protect the District's historic environmental assets (both designated and non-designated) from inappropriate development.
- Capitalise on the potential that historic assets have to contribute towards place-shaping (e.g. as the inspiration for design).
- Recognise the potential for unknown historic sites to act as a constraint on development.

Appraisal of the development strategy

- 13.7.1 Key aims of the development strategy, as established through **DPS2** (The Development Strategy 2011-2031) and **DPS3** (Housing Supply 2011-2031) are:
- *“To focus development in locations where the impacts on the historic and natural environment are minimised; and*
 - *To acknowledge that in the long term, the capacity for the market towns and villages to grow is constrained by the existing capacity and future potential of these settlements, and therefore long-term planning will need to look towards large-scale strategic development options.”*
- 13.7.2 These aims are reflected in the decision to:
- Follow an ambitious growth strategy at Bishop’s Stortford, where the historic town centre has some capacity for expansion;
 - Limit growth somewhat at Hertford, Buntingford and Sawbridgeworth; and
 - Seek strategic scale growth within Broad Locations in the Gilston Area and East of Welwyn Garden City, where there is less potential to impact directly on town centres.
- 13.7.3 The identification of a Broad Location (1,800 homes over the plan period) North and East of Ware does suggest the potential for negative effects given that the town centre urban form reflects a historic pattern and has little potential for expansion.
- 13.7.4 At Buntingford it is noted that current applications yet to be determined and others already refused and subject to the appeal process - all made in advance of the District Plan – means that there is the risk of breaching the capacity of the historic town centre (which has retained its compact Market Town character on account of the towns relative remoteness) to accept growth sustainably. There are also concerns about the potential for unplanned development to the north of Buntingford to impact the important historic landscape of Corneybury. The Council’s Supporting Document states that *“[T]he Inspector’s decisions on the two appeals to the east of the town may necessitate a review of [the preferred approach], in order to appropriately contain and manage the scale, timing and delivery of development and its*

supporting infrastructure in Buntingford, in a manner that is proportionate to its size and projected housing need.”

- 13.7.5 **DPS4** (Broad Locations for Development) requires that a ‘delivery strategy’ be put in place for each Broad Location, which in turn must reflect *“a robust transport assessment which demonstrates that the likely residual cumulative impacts on the highways network would not be severe, taking account of proposed mitigation measures across the network”*. This is important from a historic environment perspective, given the need to avoid increased traffic congestion within the historic town centres. Similarly, **DPS5** (Infrastructure Requirements) identifies four road network upgrades, two of which will have a direct impact on traffic flow/congestion in town centres.
- 13.7.6 **DPS6** (Long-Term Planning) commits to working with partners including Hertfordshire County Council and the Local Economic Partnership (LEP) to explore strategic-scale (3,000+ homes) development options to meet long-term development needs. It should be possible to find locations for strategic scale development that will ensure that growth leads to minimal impact on the district’s historic town centres.
- 13.7.7 **BISH2** (The Mill Site) requires the *“retention and renovation of the most significant historic buildings, including proving the setting of the Registry Office and adjacent listed building”*.
- 13.7.8 **BISH4** (The Causeway/Old River Lane) requires *“a design and layout which respects the significance and relationship of the site with designated and un-designated heritage assets”*.
- 13.7.9 **BUNT3** (North of Buntingford) references *“the need to protect the historic landscape of Corneybury in accordance with Policy HA2 (Non-Designated Heritage Assets) and Policy HA7 (Listed Buildings)”*.

Appraisal of the topic policies

- 13.7.10 **HA1** (Heritage Assets), **HA2** (Non-Designated Heritage Assets), **HA3** (Archaeology), **HA4** (Conservation Areas), **HA7** (Listed Buildings) and **HA8** (Historic Parks and Gardens) establish a framework for the protection and proactive conservation of heritage assets. These policies are supplemented by **HA5** Shopfronts in Conservation Areas and **HA6** Advertisements in Conservation Areas. Proactive management is important given that assets such as Historic Parks and Gardens are often much valued and visited cultural venues. Whether they are preserved as visitor attractions such as a museum or memorial to a particular time, or converted to other publicly accessible venues such as hotels or restaurants, they contribute towards education, culture and recreation. There are also wider benefits associated with protecting and enhancing heritage assets and in turn the historic character of settlements.
- 13.7.11 **ED2** (Rural Economy) is notable. The policy text does not reference the historic environment, but the supporting text highlights that: *“[A]gricultural*

buildings within the rural area are often of historic merit and the conversion of such buildings should be undertaken with care in order to protect the historic and visual quality of the building and its setting.”

Appraisal of the draft plan ‘as a whole’

13.7.12 The broad spatial strategy reflects a desire to avoid impacts to historic town centres; however, the decision to follow an ambitious growth strategy at Ware is perhaps not ideal in this respect. Uncertainties also surround the potential for growth in A414 and A1184 corridors to be delivered in such a way that avoids worsened traffic congestion in historic town centres. In terms of the site specific policies and area-wide ‘topic’ policies, it is thought that the proposed approach is suitably ambitious. A careful policy approach has been developed to guide development in the rural area, which should go some way to ensuring a proactive approach to management of assets. Overall, the proposed approach is **unlikely to lead to significant effects** on the baseline.

13.8 Housing

Sustainability issues/objectives

- Provide for sufficient new dwellings over the plan period, including specialist housing.
- Increase the provision of affordable housing.
- Provide additional Gypsy and Traveller pitches, in appropriate locations, in line with up-to-date evidence on need.

Appraisal of the development strategy

13.8.1 **DPS2** (The Development Strategy 2011-2031) and **DPS3** (Housing Supply 2011-2031) together establish an approach of 1) allocating sites where there is a high degree of confidence that they will come forward and hence contribute to the housing supply; and 2) identifying Broad Locations where the Council accepts the principle of development but there is uncertainty about aspects of the proposals which is significant enough to require further testing through further planning stages. Read alongside **DPS4** (Broad Locations for Development; which seeks to ensure that a DPD is progressed as soon as possible) and **DPS6** (Long-Term Planning; which ensures that options for strategic development at locations other than the three Broad Locations continue to be explored) can be seen to be a positive approach to ensuring housing land supply over long term.

13.8.2 An aim of the development strategy is: *“To seek to meet the housing requirement within each housing market area, even where local constraints mean that each settlement may not be able to meet its own needs.”* At Bishops Stortford, the majority of the projected housing need for the town will be met through the site allocations; however, at Buntingford, Hertford, Ware, Sawbridgeworth and ‘the villages’ this will not be the case and hence there will be a need to rely on development at Broad Locations in the Gilston Area

(north of Harlow) and East of Welwyn Garden City to meet need within the housing market area.

- 13.8.3 **DPS4** (Broad Locations for Development) seeks to address the uncertainty that surrounds feasibility / deliverability at the broad locations by committing to the preparation of a Broad Locations Development Plan Document (DPD). The supporting text states that “*acknowledging the different challenges posed by each location, it may prove necessary to bring forward one or more locations early as a stand-alone DPD.*” The ‘necessity’ relates primarily to housing need.
- 13.8.4 **DPS6** (Long-Term Planning) commits to working with partners including Hertfordshire County Council and the Local Enterprise Partnership (LEP) to explore strategic-scale development options to meet long-term development needs. This is an important commitment, not least because it could directly lead to funding arrangements being considered through the emerging LEP Growth Plan. The policy reflects an understanding that achievement of the growth targets at the three Broad Locations is uncertain. This is an appropriate approach to ensuring that housing need will be met in the long-term.

Appraisal of the topic policies

- 13.8.5 **HOU1 – HOU13** (the housing policies) clearly have implications for meeting housing needs. Key policies are:
- HOU1 (Type and Mix of Housing) – seeks to ensure the development of ‘mixed and balanced communities appropriate to local character and in accordance with the latest Strategic Housing Market Assessment’. The policy also seeks to ensure that 15% of all new dwellings [are] constructed to Lifetime Homes standards’.
 - HOU3 (Affordable Housing) – establishes threshold scales of development above which a specified proportion of new homes must be ‘affordable’, i.e. available at a price below market value. The policy also discusses the ‘exceptional circumstances’ that must be demonstrated if an applicant is to justify delivering a lower percentage level of affordable housing than that indicated by the policy.
 - HOU4 (Rural Exception Affordable Housing Sites) – reflects the fact that need for affordable housing exists in the district’s rural area, but that available sites that meet with other planning policy requirements are limited. Importantly, the policy requires that developments on exception sites must remain ‘affordable’ in perpetuity.
 - HOU5 (Dwellings for Rural Workers) – recognises the fact that rural workers can sometimes need to live close to their place of work, but struggle to find accommodation.
 - HOU6 (Housing for Older and Vulnerable People) – recognises the need to plan (in conjunction with partners) for increasing housing choices in terms of specialist accommodation, and appropriate dwellings that are in

locations close to public transport and key local services. In addition, offering attractive alternative housing choices for older people and vulnerable groups will assist in freeing-up family sized homes that are currently under-occupied.

- HOU7 (Gypsies and Travellers and Travelling Showpeople) – explains that sufficient sites will be allocated to meet identified needs. Locational criteria are listed that reflect the specific accommodation needs of the travelling community and the imperative of ensuring successful integration with the settled community.
- HOU13 (Residential Annexes) – recognises that annexes for elderly relatives can help to meet social needs whilst reducing pressure on other types of accommodation. However, the policy recognises that annexes are not always appropriate.

13.8.6

The other key consideration relates to the fact that, in the age of viability and profitability, if demands are too high for a wide range of community-based contributions, this increases development cost, thereby reducing profitability. This in turn leads to questions over whether a scheme is viable and in some cases could result in the loss of affordable dwellings or dwellings of a reasonable size with the space able to accommodate changing needs such as Lifetime Homes as these also have an additional cost over that of a 'standard' home. **Box 13.1** considers examples of policy approaches that could, potentially, impact on viability and therefore hinder the achievement of housing related objectives.

Box 13.1: Examples of policy approaches that could, potentially, impact on viability and therefore hinder the achievement of housing related objectives

- Requiring **land for open spaces or community facilities** can reduce the land available for housing, and could impact on development viability. Requirements for community facilities may be an issue particularly where they stipulate that community facilities (or other infrastructure) must be delivered during early phases of development. The preference of the development industry is often for facilities to be constructed at the end of the development build once there have been sufficient sales of the residential properties to fund the non-residential elements.
- Contributing to the creation and enhancement of **green infrastructure** networks can represent an abnormal cost to a development; however, working with existing natural assets rather than clearing or moving landscape features can reduce costs and can create more attractive built environments, which can increase the marketability of properties.
- There are also costs associated with **flood risk** mitigation measures; however, some of these costs can be offset through the creation of multi-functional green space which is also used as a flood attenuation or sustainable urban drainage feature, thus reducing the extent of hard infrastructure otherwise required for major sewage system upgrades.
- **Energy efficient design** is (still) considered an abnormal development cost by the building industry despite technology improving and requirements for such design being considered the norm. Despite it being far more cost-effective to build-in energy efficient design and technology from the outset rather than retrofitting existing or

completed buildings, there is an impact on development viability. As such, there may in some circumstances be a choice to be made between energy efficient design and the provision of affordable housing or other community benefits.

- The **environmental quality** policies seek to direct development away from locations which are affected by or may exacerbate pollution. This could have the effect of preventing development in the town centres where congestion is already an issue. This could reduce the deliverability of much needed housing, including affordable housing. However, the environmental quality policies seek to minimise the environmental impacts of development, which may in turn improve the wider environment surrounding a site. There are therefore potential benefits and dis-benefits from the environmental quality policies.

Appraisal of the draft plan ‘as a whole’

13.8.7 The broad spatial strategy is driven by the priority of ensuring housing supply in the long term by ensuring that sufficient housing land is allocated. Three Broad Locations are identified, where the principle of development is accepted and further work will be undertaken with a view to allocating land in time. Furthermore, a policy approach is in place to ensure that early thought is given to the ‘fall back’ option of a new settlement. This will prove valuable should it transpire that any of the Broad Locations are not suitable for the level of growth currently envisaged. Various area-wide ‘topic’ policies are in place to ensure that development is ‘mixed’ in terms of type and tenure, with a view to ensuring delivery of affordable housing and ensuring that other specialist housing needs are met. The proposed approach should lead to **significant positive effects**.

13.9 Land

Sustainability issues/objectives

- Support efficient use of land, including development of previously developed land (PDL).
- Support the remediation of contaminated land.
- Consider waste minimisation at the design stage of development.

Appraisal of the development strategy

13.9.1 **DPS2** (The Development Strategy 2011-2031) and **DPS3** (Housing Supply 2011-2031) reflect a desire to “*prioritise the development of brownfield land and other appropriate sites within the urban areas of the settlements, but to avoid over-development of such sites*”. The outcome is that all available brownfield sites are allocated, but there is also a need to: 1) allocate greenfield land on the edge of Bishop’s Stortford, Buntingford, Hertford and Sawbridgeworth; and 2) identify greenfield Broad Locations North of Harlow, North and East of Ware and East of Welwyn Garden City. The vast majority of greenfield housing growth (4,600 out of the 5,080 homes to be delivered at greenfield site allocations; and all of the homes to be delivered at Broad Locations) will be delivered at locations within the Green Belt.

Appraisal of the topic policies

- 13.9.2 **HOU2** (Housing Density) requires that proposals demonstrate how the density of new development has been informed by the character of the local area and the level of transport accessibility. Higher average net densities (30+ dph) will be favourably considered on central sites in or near town centres; whilst medium average net densities (30 dph) will normally be appropriate for sites that are in more peripheral locations within and on the edge of these settlements.
- 13.9.3 **DES1** (Local Character and Amenity) states that development must “*make the best possible use of the available land by respecting or improving upon the character of the site and the surrounding area, in terms of its scale, height, massing (volume, shape), orientation, siting, layout, density, building materials (colour, texture), landscaping, environmental assets, and design features, having due regard to the design opportunities and constraints of a site.*” Also, it is noted that development must “*make provision for the storage of bins and ancillary household equipment.*”

Appraisal of the draft plan ‘as a whole’

- 13.9.4 There is a focus on development within the Green Belt. This approach is necessitated on account of the housing need that exists within the various housing market areas, and the fact that locations outside the Green Belt (i.e. in the north and centre of the district) perform less well in terms of most other sustainability objectives. The approach to housing density reflects the ambition to achieve attractive and functioning new communities, e.g. communities that incorporate green infrastructure. The proposals, therefore, do not perform as well as they might do in terms of the objective to ‘use land efficiently’. It is suggested that **significant negative effects** are likely in terms of the loss of Green Belt and higher grade agricultural land.

13.10 Landscape

Sustainability issues/objectives

- Protect and enhance the district's landscape character areas and key landscape assets.
- Ensure that landscape assets, such as hedgerows, are protected and integrated within development (to maximise their potential amenity value).

Appraisal of the development strategy

- 13.10.1 **DPS2** (The Development Strategy 2011-2031) and **DPS3** (Housing Supply 2011-2031) reflect a desire to “*prioritise the development of brownfield land and other appropriate sites within the urban areas of the settlements, but to avoid over-development of such sites*”. The outcome is a need to: 1) allocate greenfield land on the edge of Bishop’s Stortford, Buntingford, Hertford and Sawbridgeworth; and 2) identify greenfield Broad Locations North of Harlow, North and East of Ware and East of Welwyn Garden City. This clearly gives

rise to the potential for direct impacts to settlement edge landscapes (which are inherently important on the basis that they are valued by local residents). Having said this, it is the case that impacts to more sensitive landscapes will be avoided to an extent:

- North of Bishop's Stortford (land allocated for 2,600 homes) the bypass will provide a boundary limit to development and retain the town's compact character, and the provision of a new Country Park will extend the pattern of Green Wedges which frame the urban area; however, South of Bishop's Stortford (land allocated for 1,000 homes) is more sensitive. i.e. there is a risk of encroachment into the countryside.
- Development East of Welwyn Garden City (Broad Location for 450 homes over the plan period) could provide a coherent urban form. Key factors include the firm edges provided by the proposed Panshanger Country Park, the internal structure provided by the woodland blocks and Moneyhole Park, and the strengths of Welwyn Garden City in terms of its past and current function and capacity. The area is largely flat and is screened from the wider area. According to the Green Belt Review (2013), boundaries running along the roads are likely to be stronger in Green Belt terms than the existing boundaries along the edge of the residential built-up area of Welwyn Garden City.
- West of Hertford (land allocated for 550 homes) existing roads and natural features will assist in creating definable boundaries to development. Development here in conjunction with development East of Welwyn Garden City should not lead to problems of coalescence given the Panshanger Country Park initiative.
- At North and East of Ware (Broad Location for 1,800 homes over the plan period) the Green Belt Review 2013 demonstrates that boundaries are generally considered weak, and hence there is some capacity to accommodate growth.
- Similarly, existing Green Belt boundaries West of Sawbridgeworth (land allocated for 400 homes) are generally not clearly defined, which could suggest some potential for growth to be accommodated. Furthermore, the level of growth proposed is appropriate in the sense that it will not be out of scale with the character of the existing town, and will enable the strategic gap between Sawbridgeworth and Harlow to be maintained. It is important to consider, however, that future growth in the Gilston Area could lead to cumulative effects.

13.10.2 The landscape to the north of Buntingford is considered valuable, including in terms of preserving the local distinctiveness of the Corneybury grounds. BUNT3 (North of Buntingford) requires that development reflects *“key design and layout principles... which should include a visual transition from rural to urban where it fronts onto Ermine Street [and the need to protect the historic landscape of Corneybury in accordance with Policy HA2 (Non-Designated Heritage Assets) and Policy HA7 (Listed Buildings)].”*

Appraisal of the topic policies

- 13.10.3 **LAN1** (Landscape Character) requires that developments submit a Landscape and Visual Impact Assessment to ensure that impacts, mitigation and enhancement opportunities are appropriately addressed. The policy also specifies the need to take into account the Council's district-wide Landscape Character Assessment. This approach should help to ensure that landscape character is not eroded over time. One of the key features of the majority of East Herts settlements is their relationship to their surrounding environment, be it a river-side or valley setting or within open agricultural settings. It is also noted that **ED2** (Rural Economy) supports rural diversification provided it does not impact the 'character and appearance of the countryside'.
- 13.10.4 **WAT1** (Flood Risk Management) has important implications for landscape (and historic) character. Many of the historic market towns and villages in East Herts evolved alongside rivers and their confluences, thus placing a large number of properties at risk of flooding. However, this river-side setting is very much part of the character of these settlements, contributing to their sense of place. Where future development is necessary in these settlements it would be preferable to avoid areas at risk of flooding; however, this may result in development in locations which could fundamentally change the historic form of the settlement. For example, a village or town built within a river valley will have evolved over time, extending along the river valley. Modern development may not follow this form as the risk of flooding would be considered too great a constraint, and may instead extend up the valley sides, potentially changing the character of the settlement.

Appraisal of the draft plan 'as a whole'

- 13.10.5 The broad spatial approach to growth performs well from a landscape perspective. The most sensitive locations are avoided (e.g. the Beane Valley east of Stevenage), the scale of growth at some locations reflects the need to 'work around' and integrate (within green infrastructure) landscape assets (e.g. North of Buntingford), and growth is also proposed where it has the potential to support the delivery of landscape (i.e. East of Welwyn Garden City / West of Hertford). On this basis, **significant negative effects are not predicted**. On a more local scale, there will be significant negative effects (e.g. in a number of locations where land is allocated on the edge of market town), but also some positive effects (e.g. where Green Belt boundaries are made more clear / less ambiguous). In terms of the approach to site specific and area-wide 'topic' policy, the proposed approach is adequate; however, it is suggested that there could be some greater potential to set further policy to ensure that strategic objectives are realised. If this level of prescription is not possible in this Local Plan (given available evidence) then there should be a focus on developing policy for inclusion in the Broad Locations DPD.

13.11 Transport

Sustainability issues/objectives

- Facilitate a modal shift away from the private car, with a particular focus on reducing commuting by car.
- Although it is recognised that all new development will add to congestion through increased vehicle movement, there is a need to ensure that the impacts are not severe.
- Seek to improve rural accessibility to bus services.

Appraisal of the development strategy

- 13.11.1 **DPS2** (The Development Strategy 2011-2031) and **DPS3** (Housing Supply 2011-2031) seek to follow an ambitious growth strategy at Bishop's Stortford, partially in-light of the fact that the transport infrastructure has some capacity. Transport constraints have influenced the decision to follow a more restrained approach at other towns. Transport is also a key reason why Broad Locations have been identified at three locations, as opposed to site allocations.
- Bishop's Stortford (land allocated for 3,950 homes) has a railways station, and the scale of the two main development proposals will enable provision of frequent new bus services to the town centre. The scale of development North of Bishop's Stortford is also such that a neighbourhood centre will be provided. Other initiatives are also set to be put in place, and further initiatives will be developed through the forthcoming Bishop's Stortford and Sawbridgeworth Urban Transport Plan.
 - At Hertford (land allocated for 750 homes) enhanced bus services will support travel to and from new urban extensions, providing links with the two existing railway stations and the central bus station. The town has good transport connections (with stations serving two different lines into London); however, traffic congestion in Hertford is acute at peak times. Buntingford (land allocated for 480 homes) is the district's northern-most town, where the lack of a railway connection has resulted in a reliance on the private car as a means of transport. Growth provides an opportunity to enhance the role and function of Buntingford as a service centre for its large rural hinterland, thus reducing distance travelled by private car. Growth will support enhanced bus services (from new urban extensions to the town and also to neighbouring towns), although a bus route would not serve development to the north.
 - Sawbridgeworth (land allocated for 400 homes) acts predominantly as a dormitory settlement, with residents commuting to neighbouring towns and also to London and Cambridge utilising the town's railway link. Congestion is therefore a significant problem in the town. The site allocation (400 homes) is located with a view to ensuring accessibility to the town's schools, shops and railway station. The majority of bus routes operate along the A1184 corridor with little penetration into residential areas. Development is unlikely to justify new or altered routes.

- East of Welwyn Garden City (Broad Location for 450 homes over the plan period) is well located next to the A414, and with potential for bus access to Hertford and Welwyn Garden City; however, further consideration will need to be given to the cumulative impact of development on the pinch-points on the A414, and also on junction 4 of the A1(M). The strategy will promote usage of National Cycle Route 61, which connections the southern edge of the site with Hertford.
 - At the Gilston Area Broad Location Transport: A wide range of small and large scale interventions including sustainable transport measures and highways, will be required if development is able to proceed without causing unacceptable congestion in Harlow and the surrounding towns and villages, as well as the wider strategic transport network. These interventions will be developed and tested through the preparation of a Development Plan Document.
 - At North and East of Ware (Broad Location for 1,800 homes over the plan period) would necessitate a new link road to help relieve the town centre of extraneous traffic.
- 13.11.2 **DPS4** (Broad Locations for Development) requires that a ‘delivery strategy’ be put in place for each Broad Location, which in turn must reflect *“a robust transport assessment which demonstrates that the likely residual cumulative impacts on the highways network would not be severe, taking account of proposed mitigation measures across the network”*.
- 13.11.3 **DPS5** (Infrastructure Requirements) identifies key infrastructure schemes needed over the Plan period to support the levels of growth envisaged. Four of these relate to transport schemes. It also states that: “Infrastructure needed to support development must be phased appropriately with the delivery of residential and other development to ensure that capacity is provided and impacts are satisfactorily mitigated in a timely manner.”
- 13.11.4 **DPS6** (Long-Term Planning) commits to working with partners including Hertfordshire County Council and the Local Enterprise Partnership (LEP) to explore strategic-scale (3,000+ homes) development options to meet long-term development needs. Strategic scale development that is well planned, with adequate transport infrastructure in place, should have the potential to support reduced need for travel by private car; however, it is noted that ‘self-containment’ will be achieved only to a limited extent with developments of circa 3,000 homes.
- 13.11.5 A number of the site specific **BUNT, BISH, EWEL, HERT, SAWB, GA** and **WARE** policies include a generic requirement to incorporate ‘sustainable transport measures including the encouragement of walking and cycling, enhanced passenger transport services’; however, a number go further by identifying specific strategic priorities. For example, GA1 (Land in the Gilston Area) requires ‘linkages with Harlow Town Station’ and SAWB3 (Land to the south of West Road) requires the provision of links to ‘the town centre and railway station’.

Appraisal of the topic policies

- 13.11.6 **TRA1** (Sustainable Transport) identifies the importance of development being well-located in terms of ensuring accessibility to key destinations by walking, cycling and public transport. As part of this, the policy recognises the need to “*ensure that a range of alternative transport options are available to occupants or users, which may involve the improvement of pedestrian links, cycle paths, and passenger transport network (including bus and/or rail facilities)*”. The policy also goes further, including by stating that: “*These improvements could include the creation of new routes, services and facilities or extensions to existing infrastructure and could also incorporate off-site mitigation.*” The policy also requires major development proposals to allow for the early implementation of sustainable travel infrastructure / initiatives to enable green travel patterns to become established from the outset of occupation.
- 13.11.7 **ED1** (Employment) states that: “*The provision of new employment uses will be supported in principle, where they are in a suitable location where access can be achieved by a choice of sustainable transport.*”
- 13.11.8 **DES1** (Local Character and Amenity) requires that development maximise “legibility of the public realm... in a way that maintains uncluttered spaces and enables easy navigation and movement through the space.” Good access will help to encourage a modal shift away from the private car.

Appraisal of the draft plan ‘as a whole’

- 13.11.9 One of the driving ‘principles’ of the development strategy is: “*To promote self-containment by directing development to areas where there is reasonable proximity to services and facilities, and which reflect existing travel to work areas, school catchments, and retail spend patterns and functional geographies.*” In this respect, the broad spatial strategy performs well in the sense that: an ambitious approach is taken to growth at Bishop’s Stortford (where there is the potential for employment growth and town centre expansion); and growth is limited at Sawbridgeworth (a ‘dormitory’ settlement). Growth at Hertford and Ware may not support ‘self-containment’, but it is noted that these settlements have good access to the rail network. The Broad Locations East of Welwyn Garden City and in the Gilston Area are set to be well connected to adjacent towns by public transport and walking/cycling; and, importantly, a restrained approach to growth is set to be taken at Buntingford, where car dependency is entrenched. It is recognised that further technical work will need to be completed to gain a greater understanding of the cumulative impact of development at the various locations in addition to development at Lower Sheering in neighbouring Epping Forest district. Overall, the proposed site allocations is unlikely to lead to significant negative effects (given site specific and area-wide ‘topic’ policies). Taking into account the Broad Locations, **negative effects** are possible but uncertain. Further technical work is set to be undertaken to understand traffic impacts and also to explore the possibility of an alternative spatial strategy that relies on growth at other ‘strategic-scale development locations’.

13.12 Water

Sustainability issues/objectives

- The sub-region experiences water scarcity, and this is likely to be exacerbated due to climate change and future growth and development.
- Support reduced per capita consumption of water.
- Distribute development taking into account water supply and sewerage infrastructure.
- Prevent contamination of the major aquifer beneath East Herts.

Appraisal of the development strategy

- 13.12.1 Waste water infrastructure capacity has been given careful consideration over the course of plan-making. Uncertainty has surrounded capacity at Rye Meads Sewage Treatment Works for a number of years, but it has now been established that upgrades are possible. Indeed, this is identified by **DPS5** (Infrastructure Requirements) as one of the seven key infrastructure requirements that are likely to be needed over the Plan period to support the levels of growth envisaged. A degree of uncertainty remains regarding waste water infrastructure capacity to serve development in ‘the Gilston Area’ (Broad Location for 3,000 homes over the plan period), but it is likely that the issue can be resolved. A new trunk sewer connecting with Rye Meads will be provided to serve development east of Harlow, and it is likely to be feasible to connect development north of the Stort into this sewer; and failing this there is the possibility of a new sewage treatment works to serve development.

Appraisal of the topic policies

- 13.12.2 **WAT2** (Water Quality and the Water Environment) should ensure that developments do not act cumulatively to impact on water quality through polluted surface water runoff. **WAT4** (Sustainable Drainage) also makes reference to the importance of SUDS supporting the achievement of water quality objectives.
- 13.12.3 **WAT3** (Efficient Use of Water Resources) will ensure minimum the use of mains water by requiring: water saving measures (including grey water recycling) with a view to achieving a target of 105 litres or less per head per day. This stringent policy approach is deemed appropriate given that East Hertfordshire lies within one of the most water-stressed areas of the East of England, which is itself one of the most water-stressed regions of the country.
- 13.12.4 **DES1** (Local Character and Amenity) requires that development ‘Embrace high quality innovative design, new technologies and construction techniques, including zero or low carbon energy and water efficient, design and sustainable construction methods’.

Appraisal of the draft plan 'as a whole'

- 13.12.5 Waste water infrastructure capacity has been given careful consideration over the course of plan-making. The outcome is confidence in that there will be no 'show-stoppers', i.e. infrastructure constraints that cannot be overcome, or are so expensive to overcome that there would be a need to draw on funding needed elsewhere (e.g. funding for community infrastructure). In terms of water efficiency and the potential for water quality impacts associated with surface water run-off, it would appear that a suitably ambitious policy approach is set to be put in place, i.e. an approach that ensures that applicants go over and above national requirements.

14 SA CONCLUSIONS AT THIS CURRENT STAGE

- 14.1.1 The discussion above under the eleven sustainability topic headings highlights that the draft plan approach performs well in some respects (in particular in terms of 'housing', 'community and wellbeing' and 'economy and employment' considerations) and less well in some other respects (in particular in terms of 'air quality' and 'land' considerations). Some concerns are also raised in terms of biodiversity, landscape and the historic environment; however, the appraisal does not go as far as to suggest 'significant negative effects' given the policy framework that is set to be put in place.
- 14.1.2 A number of the predicted benefits of the spatial strategy relate to the fact that relatively large schemes are supported, for example at Bishop's Stortford North and South, and at the three broad locations. These provide opportunities for new employment areas and a range of community facilities to encourage self-containment. These locations may, subject to financial viability, offer the best opportunities for sustainability features including decentralised heat networks, sustainable drainage, local food production, and water conservation measures. West of Hertford is a smaller development, but will complement existing facilities in close proximity. The relatively small sites North and South of Hertford, East of Bishop's Stortford, and North of Buntingford, although not large enough to provide additional community benefits, are logical from a perspective of seeking to minimise negative environmental impacts and integrate with the existing built area. At Sawbridgeworth the lack of other preferable locations potentially justifies the release of the identified location to the west for 400 dwellings, which is the least harmful location around Sawbridgeworth to meet local housing needs taking account of strategic gaps and other constraints.
- 14.1.3 Alternative approaches - including higher levels of growth at the three broad locations, new settlements elsewhere in the district, and large urban extensions East of Stevenage and/or West of Sawbridgeworth - are either of questionable sustainability merit (see the appraisal of reasonable alternatives in Part 2) or are of uncertain deliverability at this stage. However, it is recognised that there may be a need to return to some options given the need to think long term and recognising that continued incremental extension of the market towns is not sustainable. It is therefore recommended that East Herts Council should continue to investigate alternative approaches in more detail. In light of the long lead-in times for strategic scale development the Council should begin work on these assessments as soon as possible.
- 14.1.4 Alternative approaches - including higher levels of growth at the three broad locations, new settlements elsewhere in the district, and large urban extensions East of Stevenage and/or West of Sawbridgeworth - are either of questionable sustainability merit (see the appraisal of reasonable alternatives in Part 2) or are of uncertain to return to some options given the need to think long term and recognising that continued incremental extension of the market towns is not sustainable. It is therefore **recommended** that East Herts

Council should continue to investigate alternative approaches in more detail. In light of the long lead-in times for strategic scale development the Council should begin work on these assessments as soon as possible.

PART 4: WHAT ARE THE NEXT STEPS (INCLUDING MONITORING)?

15 INTRODUCTION (TO PART 4)

- 15.1.1 This Part of the SA Report explains the next steps that will be taken as part of the plan-making / SA process.

16 PLAN FINALISATION, ADOPTION AND MONITORING

- 16.1.1 Subsequent to the current consultation it is the Council's intention to prepare the proposed submission version of the plan for publication in-line with Regulation 19 of the Local Planning Regulations 2012. The proposed submission plan will be that which the Council believes is 'sound' and intends to submit for Examination. Preparation of the Proposed Submission Plan will be informed by the findings of this Interim SA Report as well as representations made through the current consultation.

Might there be a need for further consultation prior to preparing the Proposed Submission Plan?

It will be necessary for the Council to take account of the continually evolving situation in relation to planning applications and appeals. It is unlikely that further consultation (or formal appraisal steps) will be necessary prior to preparing the proposed submission plan (which will then be subjected to appraisal and consultation); however, the possibility cannot be ruled-out.

- 16.1.2 **The SA Report** (as opposed to an Interim SA Report) will be published alongside the Proposed Submission Plan. It will provide all of the information required by the SEA Regulations 2004.
- 16.1.3 Once the period for public representations has finished the main issues raised will be identified and summarised by the Council, who will then consider whether the plan can still be deemed to be 'sound'. Assuming that this is the case, the Plan (and the summary of representations received) will be submitted for Examination.
- 16.1.4 At Examination the Inspector will consider representations (alongside the SA Report) before then either reporting back on the Plan's soundness or identifying the need for modifications. If the Inspector identifies the need for major modifications to the Plan these will be prepared and then subjected to consultation.
- 16.1.5 Once found to be 'sound' the Plan will be formally adopted by the Council. At the time of Adoption a 'Statement' must be published that sets out (amongst other things) *'the measures decided concerning monitoring'*.

16.2 Monitoring

- 16.2.1 At the current stage it is useful to present a description of the measures envisaged concerning monitoring. The Council has prepared a draft Monitoring Framework against which, it is proposed, the District Plan will be measured. The framework is essentially a list of indicators, some of which have been developed in-light of early SA work.

- 16.2.2 The District Plan will require continuous monitoring and review to ensure that it remains relevant and responds to changing needs and circumstances. The Annual Monitoring Report (AMR) will be used to report monitoring findings. The indicators and targets/basis for evaluation within it will also be continually reviewed and may be amended and updated if required. The purpose of the AMR will be to:
- Set out the Council's housing trajectory and 5 year housing land supply assessment.
 - Report on the effectiveness of the policies contained in the District Plan and identify the need to reassess or review any policies.
 - Update the Infrastructure Delivery Plan and report on the application of the Community Infrastructure Levy.
 - Monitor the preparation and implementation of Neighbourhood Plans.
 - Summarise actions the Council has taken under the duty to co-operate.

A APPENDIX A: Development options appraisal

A.1 Introduction

A.1.1 69 development options were subjected to a sieving process that involved both rigid (criteria-based) and more 'loose' (qualitative) analysis. The sieving process was designed so as to 'integrate' sustainability appraisal.

A.1.2 The outputs of the sieving process are presented across c.800 pages of the Council's Supporting Document (Chapters 3 - 6), and so it would not be appropriate to repeat sieving / appraisal findings here. Rather, it is appropriate to give **examples** of the sieving analysis presented within the Supporting Document, i.e. examples of where either:

- Development options were knocked-out / refined on the basis of the sieves; or
- Development options were not knocked-out / refined despite problems being flagged.

A.1.3 Examples are presented below under eleven headings; one for each of the sustainability 'topics' that form the basis of the SA framework (see Part 1, above).

A.2 Air quality

A.2.1 In relation to Bishop's Stortford:

- Section 4.4.6 (Bishop's Stortford: Settlement Evaluation) highlights that: *"Like many market towns facing growth pressures, development at Bishop's Stortford would need to overcome a number of tough challenges. Narrow streets radiate out from the market square, and Hockerill junction is a recognised congestion hotspot, resulting in poor **air quality** from vehicular emissions. Roads around the town are also under pressure, including Junction 8 of the M11, the single-carriageway town bypass, the Little Hadham lights on the A120 to the west providing access to the A10, and south towards Harlow on the A1184... Future development in Essex is likely to add to these challenges, because Bishop's Stortford already attracts substantial numbers of shoppers, school children and workers from outside the town. The logistical challenge of facilitating the movement of large numbers of people on a daily basis is considerable."*
- The section goes on to state that: *"Bearing in mind these considerations, it is possible to see how **further work** could provide a coherent strategy for management of development pressures. A strategy will need to use the existing advantages of the town in order to build capacity, and to identify and then mitigate any negative impacts of development... a way forward is needed in terms of a robust **transport strategy**. Various options have been proposed by different parties in the past..."*

- The section concludes that a high growth scenario for Bishop’s Stortford (4,700 dwellings) is a ‘marginal fail’, including on the basis that a robust transport strategy would be made less feasible.
 - This ‘Settlement Evaluation’ then fed into the consideration of development options. Section 6.3 draws conclusions on the Bishop’s Stortford development options. The conclusion is reached that this higher growth strategy / development at several locations may be appropriate on the basis that:
 - *“Hertfordshire County Council’s advice in relation to transport indicates that there are no apparent ‘showstopper’ issues at present...”* and
 - *“The Bishop’s Stortford and Sawbridgeworth Urban Transport Plan (UTP) will follow publication of the draft District Plan, and will provide further evidence in respect of possible mitigation measures to address the cumulative impacts of development. It will look at the cumulative impact of traffic entering the town from Hertfordshire and Essex; and it will further assess the options for Park and Ride facilities for the town, taking account of planned development at sites across the area and beyond. Working with East Herts Council’s Environmental Health department, and taking account of transport modelling and transport mitigation measures, the UTP will also address the issue of air quality at the **Hockerill Air Quality Management Area.**”*
- Also, Section 4.12.3 - Harlow: Settlement Evaluation – makes reference to air quality, highlighting that an area for further investigation and assessment is: *“Impact on European designated habitats, in particular possible impacts on air quality in Epping Forest”*

A.3 Biodiversity and green infrastructure

A.3.1 Section 3.5 of the Council’s supporting document describes how 69 development options were analysed in terms of proximity to designated wildlife sites. Each was categorised using the following criteria:

- **Red** - Areas within 2km of a SAC, SPA, NNR, Ramsar site or SSSI; or includes a Local Nature Reserve; or where the majority of the area contains land designated as a Local Wildlife Site.
- **Amber** - Areas within 5km of a SAC, SPA, NNR, Ramsar site or SSSI; or adjacent to a Local Nature Reserve; or where the area contains a large proportion of land designated as a Local Wildlife Site.
- **Green** - Areas which are within proximity to but contain no or only a small amount of land designated as a Local Wildlife Site.

A.3.2 Options that were sieved-out on the basis of biodiversity considerations include:

- Major development to the south of Hertford – as this would require a southern bypass which would impact on the only National Nature Reserve in the district – the Broxbourne Hoddesdonpark Woods complex

- Parts of Hertford North – reflecting the presence of Waterford Heath, a Local Nature Reserve (Wildlife Trust) with large areas of floodplain
- Land between Hertford and Ware - reflecting the presence of Kings Mead, a flagship Local Nature Reserve (Wildlife Trust)
- Land to the south-east of Ware - because of the potential effects on the Lea Valley Ramsar sites

A.3.3 Options that passed this initial sieve, despite the criteria-based assessment ‘flagging’ some concerns include, for example:

- Bishop's Stortford South (sub-area A), in relation to which it is stated that -
 - *“In terms of wildlife assets, Thorley Wash County Wildlife Site lies on the opposite side of London Road. Any impact on foraging bats and breeding birds would be assessed through an ecological survey and if necessary managed and appropriate mitigation measures put in place as part of a planning application. The small fragment of Thorley Woods County Wildlife Site could be incorporated as a feature within a development layout as part of a Green Infrastructure Strategy.”*
- Hertford West – where the Panshanger Park (a significant biodiversity asset that could potentially be upgraded in status to a ‘Country Park’) is in close proximity. Para 4.6.3.6 states that *“Another matter of particular concern is the potential effect of development in the area on the Designated Wildlife Site, ancient woodland, and the historic asset of Panshanger Registered Park and Garden. These issues may prove difficult to overcome. However, part of the land is currently in agricultural use.”* Para 4.6.3.15 states that *“Moreover, a potential benefit of the Hertford West location would be the opportunities this could present to help enable the further progression of the Panshanger Country Park initiative.”* Para 6.5.20 states that *“... the return of the developer questionnaires resulted in an adjustment of the capacity of Sub-Area B from 300 to 250 dwellings based on the promoters’ assessment of the site taking into account various matters which include, inter alia, the protection of the wildlife site.”*

A.4 Climate change

A.4.1 The Supporting Document acknowledges that there may be opportunities for greater levels of sustainability features at the strategic scale of development. As discussed in Chapter 2 (Paragraphs 2.11.13 and 15):

- Energy opportunities mapping suggests locations where such opportunities may be explored through planning. It may be that energy opportunities have some influence on the selection of a development strategy, although there is not likely to be a direct correlation. For example, availability of wind or biomass is not likely to be a consideration in the selection of locations for strategic-scale development. For this reason energy opportunities mapping has not been used as a basis for a topic assessment in Step 3.

- Climate change mitigation requires more than identifying energy opportunities. It is also about infrastructure delivery, for example district heating systems. These are complex and long-term projects which require a policy framework but also require extensive investigation into feasibility and deliverability.

A.4.2 In line with this approach, the Supporting Document draws attention to opportunities for delivery of low carbon systems, for example in Chapter 4 Paragraph 4.12.3.14 in relation to the Gilston Area (north of Harlow) which draws attention to “delivery of sustainability features, including Green Infrastructure, sustainable drainage, low carbon energy generation, sustainable waste treatment, and rainwater harvesting technology.”

A.5 Community and wellbeing

A.5.1 In relation to Buntingford North East (sub-area B)

- Para 6.4.38 explains that it is appropriate to revise down the number of dwellings at the site (from 300 to 125) on the basis that: *“Being adjacent to Layston First School this land is ideally located to provide for the expansion of the school. Although there is capacity in the short to medium term within the two primary schools, it is expected that they will need to expand towards the end of the Plan period to accommodate future growth of the town. To prejudice this ability of the school to expand in the future would be short-sighted and could cause future capacity issues. Development in this location should therefore set aside land for the future use by the school.”*

A.5.2 In relation to Sawbridgeworth Urban Area

- Para 6.6.15 explains the reasons for reducing the number of homes allocated to the Sawbridgeworth Urban Area. Part of the reason relates to the need to retain the designation of 14 hectares of land to the north of Leventhorpe School for sports pitch provision, given the identified shortfall of sports pitches within the M11 corridor.

A.5.3 In relation to Sawbridgeworth West (sub area A)

- Para 6.6.26 explains that it is appropriate to revise down the number of dwellings at the site (from 175 to 100) on the basis that: *“... being adjacent to Mandeville School, this site would need to provide land to enable expansion of the school. [Hertfordshire County Council’s] preference would be for land to the west of the existing school site to be allocated for this purpose... Therefore, it is considered that the site be allocated for the development of 100 dwellings, with land provided to enable the expansion of the primary school adjacent to the site.”*

A.6 Economy and employment

A.6.1 In relation to the Ware Urban Area

- Para 6.7.11 identifies that ‘the need to protect Ware’s existing employment sites’ is one reason why it is not appropriate for the built-up area to make a significant contribution to housing supply.

A.7 Historic environment

A.7.1 In relation to Hertford South (sub area C) –

- Para 6.5.31 explains that: “... *if development at the scale proposed by the site promoter [100 dwellings] were to be brought forward in the area... it would result in a very high density development (around 50 dph). Not only would this need extremely careful planning given the site’s location within the **Hertford Conservation Area**, but it may also appear out of context with the built form of neighbouring developments... Therefore, on balance... it is considered that the number of dwellings should be reduced to 50...*”

A.7.2 In relation to Buntingford North (sub area A) -

- Para 6.4.35 explains how: “*Development in this location will need to ensure that there is an appropriate transition between the existing urban area and the wider countryside to the north of the town and the important historic landscape of Corneybury to the east of Ermine Street. Given these constraints and the need to provide other land uses the figure of 180 dwellings is considered an appropriate number of dwellings to the north of the town.*” A figure of 250 dwellings had previously been muted (in Chapter 4).

A.8 Housing

A.8.1 Housing distribution to meet local need is addressed in Section 4.5 of the Interim Development Strategy Report (January 2014). Section 4.5.15 concludes with a summary of the approach which has shaped the emerging strategy:

- Bishop’s Stortford should meet the majority of its own needs, but any unmet need from Bishop’s Stortford should be met in the Gilston Area (to the north of Harlow), within the same housing market area;
- Buntingford should meet its own needs, plus a proportion of the unmet need from the surrounding villages which constitute its hinterland;
- Hertford is heavily constrained and this means that it is not able to meet its own needs locally. Therefore it is proposed that a proportion of Hertford’s unmet needs should be addressed through development east of Welwyn Garden City. Although not within the same housing market area, the SHMA recognises that the HMA boundaries are somewhat fluid, and given the importance of the A414 and the proximity of Hertford and Welwyn Garden City this approach is considered reasonable;
- Sawbridgeworth should meet its own needs;
- Ware should meet its own needs, possibly including a proportion of the need from villages which form its hinterland;

- The Rural Area cannot meet its own needs, and therefore these should be met elsewhere in the district, where possible within the same housing market area, or if not possible then these needs may be met in the Gilston Area to the north of Harlow.

A.9 Land

- A.9.1 The Interim Development Strategy Report (January 2014) notes the limited availability of brownfield land available for development. Section 4.3: Housing Supply notes that there is the potential for only 828 dwellings in the urban areas. Table 5.1 of the report demonstrates that there is the potential for only 8,632 dwellings on land excluding Green Belt. This provides the justification for looking beyond the urban areas, after the sequentially preferably supply of brownfield land is exhausted.
- A.9.2 A number of the assessment topics in Chapter 3 of the Supporting Document address land-related sustainability issues.
- Green Belt (Section 3.15)
 - Strategic gaps (Section 3.16)
 - Boundary Limits (Section 3.17)
 - Minerals and waste (Section 3.19)
 - Agricultural land classification (Section 3.20)
 - Environmental Stewardship (Section 3.21)
- A.9.3 In terms of Green Belt, Chapter 2 of the Supporting Document states that *“Since four of the district’s five towns and many of the villages are surrounded by Green Belt, it is doubtful whether it is possible to meet the requirement to ‘promote sustainable patterns of development’ without reviewing the Green Belt and extending existing settlements. It would also be very difficult and expensive to provide adequate supporting infrastructure if all development were to take place beyond the Green Belt, given that the settlements outside the Green Belt areas are by and large quite small.”* Therefore areas of search were developed including areas within the Green Belt as well as beyond the Green Belt. A Green Belt Review was completed in November 2013, but prior to that a high-level screening exercise was carried out to look at two of the five Green Belt principles, i.e. Strategic Gaps and Boundary limits. This provided a proportionate level of detail at this early stage.
- A.9.4 Two key examples of the uses of Strategic Gaps relate to the area North of Hoddesdon (area of search 63) and South-west Ware (area of search 22).
- Chapter 4 of the Supporting Document states that: *“The main concern in this area relates to the preservation of the strategic gap between Hoddesdon and Ware. This area has a particularly important Green Belt function. The distance from Hoddesdon to Great Amwell and St Margarets is less than 1km, and therefore development of whatever scale within the existing gap would result in unacceptable compromise in Green Belt functions, in*

particular in relation to the need to prevent towns from merging. In terms of visual intrusion, the strategic gap is part of the sense of place when leaving London and entering the distinctive mix of villages, small towns and countryside north of the capital.” (Paragraph 4.13.2.2).

- *At South-West Ware the Supporting Document states that: “...any development in this location would seriously compromise the strategic gap and significantly add to existing coalescence pressures, particularly in the vulnerable areas between Ware and Hertford and Ware and Great Amwell. Hertford.” (Paragraph 4.8.6.7)*

A.9.5 Turning to minerals extraction, North of Hertford (area of search 12) was reduced in size partly because of consideration of the impact on the Preferred Area for future sand and gravel extraction (adjacent to Rickneys Quarry) which lies further to the north (Chapter 4 paragraph 4.6.4.14).

A.9.6 In relation to waste, Ware South-west (area of search 22) states that *“This area includes Presdales Pit, a former quarry that has not been restored to its former levels. This particular site has been identified within Hertfordshire County Council’s waste site allocations document as having potential for a future waste site, the implications of which may mean, firstly, that land that has been submitted via the Call for Sites may not be available, and secondly, that use of this area for waste purposes could impact on a wider area and possibly limit development potential further.” (Paragraph 4.8.6.6)*

A.9.7 Agricultural land classification has been considered as part of the balance of considerations in deciding which options to bring forward. For example, in relation to land North of Bishop’s Stortford (Area of Search 2), the Supporting Document States that *“Substantial good quality agricultural land would be lost through development of this area of search, although its importance as commercial arable land is questioned given severance caused by the A120. If there is a sufficient quantity of preferable development land at other areas of search then this would be a material consideration.” (Paragraph 4.4.3.7)*

A.10 Landscape

A.10.1 In relation to Buntingford North East (sub-area B)

- *Para 6.4.36 explains that “Land to the north-east of Buntingford to the north of Hare Street Road was, at the end of Chapter 4 considered a reasonable option for development, gaining a ‘marginal pass’ for up to 300 dwellings. An application was subsequently submitted on land to the north of Hare Street Road for 160 dwellings a cemetery and allotments... There are potential impacts on the landscape from development in this location as it is extending up the valley sides. There is a clear boundary to development in the form of a tree belt, however, the proposed development extends beyond this boundary through the creation of the cemetery and allotments to the east of the tree belt into land where there is no clear boundary to development.”*

- A.10.2 In relation to Hertford North (sub-area C) –
- Para 6.5.25 explains that *“In Green Belt Review terms, it has been established that the Green Belt particularly serves the purpose of safeguarding the countryside from encroachment to the east of Wadesmill Road due to the strong landscape character of the Lower Rib Valley. This would favour development in the western section of the overall Sub-Area. It is considered that the area to the west of the B158 Wadesmill Road could be suitable for the delivery of around 150 dwellings.”*
- A.10.3 In relation to Sawbridgeworth West (sub-area A)
- Para 6.6.25 explains that *“There are two sites being promoted for development to the north of West Road. It is proposed that only one site, Brickwell Fields, is allocated for development. This site wraps around Mandeville School and it is proposed to use the stream running along the western boundary of the site as the new Green Belt boundary. Part 2 of the Green Belt review concludes that allowing development further to the west and north of West Road will result in unacceptable urban sprawl as the development will be located further away from the existing built-up area of the town and there are no identifiable physical boundaries to limit the extent of development.”*
- A.10.4 In relation to Sawbridgeworth West (sub-area B), there are three landowners promoting sites stretching along the western boundary of Sawbridgeworth. Landscape considerations are key in relation to two of these sites:
- Para 6.6.29 explains that: *“The site directly south of West Road, land at Chalks Farm, is being promoted for the development of 300 dwellings. Part 2 of the Green Belt review comments on how the ribbon development along West Road encroaches on the openness of the land to the south and recommends that the Green Belt boundary be amended, releasing part of the site, to align with the existing development along West Road. However, the developer questionnaire response from the promoter of the site indicates that the proposed site access will be located further along West Road beyond the strip of ribbon development... [T]he principle of a site access further along West Road is accepted. However, the precise location of this access should be subject to further discussion to limit the impact on the openness of the countryside. It is also noted that Part 2 of the Green Belt review concludes that there are limited identifiable physical boundaries currently in this location which could be used to determine the extent of Green Belt release so it would be necessary to design in a strong defensible Green Belt boundary through any development proposal. A significant area of open space would also be required adjacent to the boundary of the site to ensure that there is an appropriate transition between any new development and the wider countryside.”*
 - Para 6.6.34 considers the ‘land at Thomas Rivers Hospital’ site, and states that: *“At the end of chapter 4, it was considered that there should be no development permitted south of The Crest within this sub-area. Part 2 of*

the Green Belt Review has reaffirmed this conclusion. It states how the Green Belt in this location particularly serves the purpose of preventing coalescence between Sawbridgeworth and Harlow and more significantly, High Wych. The role of the Green Belt in safeguarding the countryside from encroachment is also concluded to be significant due to the presence of the protected Rivers Orchard Nursery wildlife site, and it is considered that development would have a negative impact on the nature conservation value of the wildlife site.”

- Also, para 6.6.35 describes how: *“A smaller scale of development adjacent to the built up area of the town, around Brook End, has been considered in response to queries about safeguarding the community use of the Rivers Orchard Nursery site. However, it is not considered that there are any alternative access points to this area other than using the road that serves the existing hospital. It is considered that a road cutting across the countryside to serve a smaller area of development adjacent to the existing urban edge would cause harm to the Green Belt in terms of encroaching on the countryside and it would make the remainder of the site vulnerable to pressure for further development.”*
- Para 6.6.36 then concludes that: *“Therefore, on balance of the issues raised above, it is considered that the land at Chalks Farm should be allocated for the development of 300 dwellings.”*

A.10.5 Landscape considerations are also a foremost consideration in relation to a number of development options around Buntingford.

- Para 6.4.33 describes how, in relation to Buntingford North (sub area A): *“The landscape to the north of the town is considered valuable as a barrier and transition between urban and rural and in preserving the local distinctiveness of the Corneybury grounds. A balanced judgement will be necessary to determine whether the potential benefits that could be realised from the site outweigh the potential impacts on a sensitive landscape which is a key part of the character of Buntingford.”*
- In relation to Buntingford North-East (sub area B) paras 6.4.36 – 6.4.39 explain how a planning application has been received, refused and is currently subject to appeal. The application is for 160 dwellings, which the Council believes is inappropriate given landscape constraints, stating that: *“There are potential impacts on the landscape from development in this location as it is extending up the valley sides. There is a clear boundary to development in the form of a tree belt, however, the proposed development extends beyond this boundary through the creation of the cemetery and allotments to the east of the tree belt into land where there is no clear boundary to development.”* The Council suggest that 125 dwellings could be appropriate.

A.11 Transport

A.11.1 In relation to Buntingford South and West (sub-area B)

- Para 6.4.29 explains that: *“Access is also a considerable barrier... Development in this area would require several points of access, however, two potential access points to the north of the site have been prejudiced by recent planning permissions, existing estate roads are close to or over capacity, and access from the A10 bypass would not normally be acceptable to the Highway Authority. Information submitted by the land promoter to the Call for Sites process suggests that access from the A10 could be achieved to serve a development of approximately 500 dwellings... Access would only be by a single point of access from the A10 with a possible link road to the south of the site past the sewage works. As such, there would be few links to the existing built fabric of the town, with residents of this estate effectively bypassing the town itself rather than being an integrated element. Information from the Highway Authority suggests that access directly from the A10 would not be supported in any location to the west of Buntingford. Given these access issues... this area would be considered the least suitable location and should therefore not be an option for development within this Plan period.”*

A.11.2 In relation to Hertford South (sub-area C) –

- Para 6.5.29 explains that, due to highways and passenger transport constraints, a limited amount of development is appropriate. The Chapter 4 assessment concluded that *“further investigation should be undertaken for the provision of up to 100 dwellings in the Mangrove Road area”*.

A.11.3 In relation to Hertford North (sub area C)

- The original assumed figure of 500 dwellings was revised downwards to 100 due to highway and waste water constraints. However, subsequent investigations then found that the capacity in the area could support a total of 150 dwellings.

A.12 Water

A.12.1 In relation to Hertford North (sub area C)

The original assumed figure of 500 dwellings was revised downwards to 100 due to highway and waste water constraints. However, subsequent investigations then found that the capacity in the area could support a total of 150 dwellings.

B APPENDIX B: alternatives appraisal

B.1 Introduction

B.1.1 As described within Part 2 (above), an interim stage of plan-making / SA involved appraising the following alternatives:

Table B.1: Alternative options for appraisal

| Option | Total housing growth | Allocations | Broad locations |
|--------|----------------------|-------------|---|
| 1* | 15,932 | 5,580 homes | 3,000 homes in the Gilston Area 1,800 homes North and East of Ware 450 homes East of Welwyn Garden City |
| 2 | 15,382 | 5,580 homes | 1,700 homes East of Welwyn Garden City 3,000 North and East of Ware |
| 3 | 15,382 | 5,580 homes | 1,700 homes East of Welwyn Garden City 3,000 homes West of Sawbridgeworth (with a bypass) |
| 4 | 15,682 | 5,580 homes | 5,000 homes East of Stevenage |
| 5 | 15,682 | 5,580 homes | 5,000 homes in the Gilston Area |
| 6 | 15,682 | 5,580 homes | 5,000 homes at a new settlement in a transport corridor |
| 7 | 15,102 | 0 homes | 10,000 homes in the Gilston Area |
| 8 | 25,382 | 5,580 homes | 1,700 homes East of Welwyn Garden City 3,000 homes North and East of Ware 10,000 homes at In the Gilston Area |

B.1.2 The appraisal findings presented here should be read alongside Section 11.3, above. Essentially, Section 11.3 presents a refinement of the appraisal text presented below.

B.2 Methodology

B.2.1 For each of the options, the discussion identifies and evaluates ‘likely significant effects’ on the baseline / likely future baseline, drawing on the sustainability issues and objectives identified through scoping (see Part 1 of the main report) as a methodological framework.

B.2.2 Every effort is made to predict effects accurately; however, this is inherently challenging given the high level nature of the alternatives. The ability to predict effects accurately is also limited by understanding of the baseline.

- B.2.3 Because of the uncertainties involved there is inevitably a need to make assumptions. Assumptions are made cautiously, and explained within the text.⁶³ The aim is to strike a balance between comprehensiveness and conciseness/accessibility to the non-specialist stakeholder.
- B.2.4 In many instances, given reasonable assumptions, it is not possible to predict significant effects, but it is possible to comment on merits (or otherwise) in more general terms. This is helpful, as it enables a distinction to be made between alternatives even where it is not possible to distinguish between them in terms of 'significant effects'.
- B.2.5 It is important to note that effects are predicted taking into account the criteria presented within Schedule 1 of the SEA Regulations.⁶⁴ So, for example, account is taken of the probability, duration, frequency and reversibility of effects as far as possible. Cumulative effects are also considered. These effect 'characteristics' are described within the appraisal as appropriate.

B.3 Air quality

- B.3.1 Air quality is an issue at Bishop's Stortford (where an AQMA is designated at Hockerill), at Hertford (where an AQMA covers the majority of the A414 through the town) and at Sawbridgeworth (where an AQMA is designated at London Road). Air quality also has an impact on vulnerable ecosystems such as those at the Broxbourne Hoddesdonpark Woods (part of which is within 200 metres of the A10), the Lee Valley Special Protection Area/Ramsar sites⁶⁵ and the Epping Forest Special Area of Conservation (which, although outside of East Herts, could potentially be affected by increased vehicle movements on trunk roads leading out of the district). Any option would necessitate measures with a view to reducing vehicle movements and mitigating the effects of air pollution (e.g. providing appropriate buffer planting and green infrastructure). As such, the options are appraised as follows –
- Option 1 would concentrate development to the south of the District along the A414 corridor, in addition to around each town. Increased vehicle movements will be expected on the A414 and the A10, impacting on air quality around the Broxbourne Hoddesdonpark Woods SAC and Lee Valley SPA/Ramsar site. Development of 3,000 dwellings in the Gilston Area would not trigger nor deliver a new link road to the M11 (which would reduce pressure on the A414).
 - Option 2 – Concentrating development North and East of Ware (3,000 homes) would necessitate a link road to alleviate the impacts of additional vehicle movements through the already congested town. The concentration of development here, in combination with a high growth approach East of

⁶³ As stated by Government Guidance (The Plan Making Manual, see <http://www.pas.gov.uk/pas/core/page.do?pageld=156210>): "Ultimately, the significance of an effect is a matter of judgment and should require no more than a clear and reasonable justification."

⁶⁴ Environmental Assessment of Plans and Programmes Regulations 2004

⁶⁵ Some of the effects of air deposition on the Lee Valley SPA/Ramsar site are masked by the discharges from the Rye Meads WwTW,

Welwyn Garden City (1,700 homes) would increase vehicle movements on the A414 and the A10, impacting on the air quality around the Broxbourne Hoddesdonpark Woods and the Lee Valley.

- Option 3 performs well, as a prerequisite for major development at Sawbridgeworth (3,000 homes) would be a bypass, which would relieve traffic congestion at the London Road AQMA if development was accessed from the bypass. There would however, be local impacts within the built-up area from additional development, as not all vehicle movements would be via the bypass. This option would not deliver an alternative route to the M11, increasing the number of vehicle movements through or around Bishop's Stortford affecting the Hockerill AQMA; however, impacts on the A414 through the District would be less than under Option 2.
- Option 4 performs well in terms of reducing the impacts of development near the sensitive European Sites. However, a large development of 5,000 dwellings to the east of Stevenage would have implications on the local air quality of Stevenage as the majority of vehicle movements would by necessity be through the town towards the A1(M) on already busy town centre roads that are monitored regularly for local pollution.
- Option 5 is similar in some ways to Option 1 and 2, but development would be focused in the Gilston Area only (5,000) and not at Ware or Welwyn Garden City. Development on this scale is unlikely to deliver an M11 link road, thus increasing the number of vehicle movements along the A414 and A10 past the Lee Valley and the Broxbourne Hoddesdonpark Woods. It would also increase pressure on local roads in Harlow from vehicles wishing to access the M11.
- Option 6 could perform well as development could be located away from the south of the District where air quality is more of an issue. It is assumed that vehicle movements would be minimised by putting in place adequate passenger transport connectivity to nearby towns.
- Option 7 performs well on the basis that the need to allocate homes at Bishop's Stortford, Hertford and west of Sawbridgeworth would be avoided, thus reducing pressure on existing AQMAs. It is assumed that a 10,000 home development in the Gilston Area would be to a large extent self-contained and focused on Harlow. At this stage it is not known whether the development would fund a link road to the M11. Without this link road, development would be likely to increase vehicle movements along the A1184 through Sawbridgeworth and Bishop's Stortford. Option 7 stands out to some extent as best performing as it would concentrate development in the Gilston Area only, thus reducing the likelihood of local impacts around each town. It is also possible that one large development would be more self-sufficient and could provide more infrastructure improvements than a dispersed pattern of development.
- Option 8 performs relatively poorly as this represents the greatest level of development, all focussed to the south of the district along the A414 corridor. Significant negative effects would certainly be likely.

B.4 Biodiversity and green infrastructure

B.4.1 A key consideration is the potential for impacts to Sites of Special Scientific Interest (SSSIs), Local Wildlife Sites and areas of 'wider countryside' that are likely to be important in terms of ensuring connectivity between key sites (e.g. areas that contribute to connectivity along the Lee Valley). It is also important to consider the impact of traffic leading to air pollution (nitrogen deposition) impacts (also see discussion above under 'Air quality').

- Option 1 would focus growth along the A414 corridor and North and East of Ware (1,800 homes), and hence increase traffic along the A414 and A10, potentially leading to air quality impacts to important sites. On a more positive note, smaller scale growth in the Gilston Area (3,000 homes) and East of Welwyn Garden City (450 homes) would increase the potential to avoid development of more sensitive areas. There are several locally-designated areas of woodland East of Welwyn Garden City, but it is expected that these can be accommodated within a 'landscape buffer'. The Panshanger Park Wildlife Site could similarly be accommodated and support would be lent to the Panshanger Country Park initiative. Having identified these 'positives' it is important to note that 3,000 homes in the Gilston Area would probably 'unlock' further growth here in the long term.
- Option 2 is similar to Option 1, but the larger scale of development East of Welwyn Garden City (1,700 homes) would reduce the potential to design-in green infrastructure and hence avoid impacts on existing biodiversity assets. There are few biodiversity assets North and East of Ware; however, there remains a need to build in suitable green infrastructure with a view to ensuring links are retained to the countryside. This scale of development (3,000 homes) could create challenges.
- Option 3 would reduce impacts on the A10 corridor but would instead have a more detrimental impact on Wildlife Sites and biodiversity assets West of Sawbridgeworth (3,000 homes). It is not possible at this stage to predict where a bypass would be located, but this scale of development could have negative impacts on the Rivers Nursery and Orchard Wildlife Site.
- Option 4 could have significant detrimental effects on the vulnerable chalk stream river environment of the Beane Valley, which also contains a local Wildlife Site and SSSI at Box Wood and Benington High Wood. Water abstraction necessary to serve the development could be an issue if water is drawn from the River Beane, and waste water treatment would also need further exploration as the biodiversity of the River Beane is particularly vulnerable to discharge. However, development here would be further removed from the European sites in the south of the district.
- Option 5 would focus development (in addition to the edge of settlement locations) in one location in the Gilston Area. At 5,000 homes, there would be good potential to build in significant green infrastructure into the development with a view to supporting the functioning of the River Stort as an ecological network; however, this scale of development would require improvements to the Rye Meads WwTW.

- Option 6 performs well on the basis that it should be possible to locate a 5,000 home new settlement in an area that is less sensitive from a biodiversity perspective (i.e. open farmland) and there should be good potential to design-in high quality green infrastructure. A new settlement might well be located so as to encourage east-west trips (including commuting for work); however, it is recognised that north-south trips (and hence pressure on the A10) would also be likely.
- Option 7 performs well on the basis that growth would be directed away from the A10 corridor, and there would not be a need to allocate sites at sensitive⁶⁶ settlement edge locations around Buntingford, Bishop's Stortford, Hertford or Sawbridgeworth.
- The Stort Valley north of Harlow (which would be the focus of a 10,000 home development) is a sensitive environment from a biodiversity perspective; however, work has been ongoing for a number of years to consider how green infrastructure could be effectively integrated as part of development. The Harlow GI Plan (2005) identifies this area to be associated with "a major opportunity for developing a series of multi-functional and connected green spaces managed for wildlife, access and recreation on Harlow's doorstep."
- Option 8 performs least well as there is potential for growth to impact on the A10 and A414 corridors and the total quantum of growth would be higher than under any other option. A particularly extensive programme of mitigation measures (i.e. a carefully planned green infrastructure strategy) would be required to reduce the impacts of development on biodiversity assets. However, significant negative effects could be unavoidable.

B.5 Climate change

B.5.1 The discussion below focuses on 1) climate change mitigation through reduced built environment related carbon emissions; and 2) transport related carbon emissions. In relation to (2), this issue is also covered below under the 'transport' heading (and hence the two discussions should be read alongside one another). Climate change adaptation issues are discussed primarily under other topic headings, in particular the 'communities and well-being' and 'water' topics. N.B. Flood risk is not a focus of this alternatives appraisal as it is assumed that strategic development, wherever it is located, will inevitably avoid flood risk zones and incorporate Sustainable Urban Drainage Systems (SUDS).

- Option 1 - Smaller scale of development in the Gilston Area (3,000 homes) would not likely be as self-sufficient as a larger scale of development, thus resulting in high levels of movement to the higher order town of nearby Harlow for services and facilities.

⁶⁶ The suggestion that settlement edge locations are important from a biodiversity perspective reflects their accessibility to the public. However, it is important to note that not all settlement edge sites that would be allocated under all options other than Option 7 are 'sensitive'. West of Hertford, for example, is understood to be relatively unconstrained and indeed development could lead to positive biodiversity effects given that support would be lent to the Panshanger Country Park initiative.

- Option 2 performs well as development would be focussed on locations (1,700 homes East of Welwyn Garden City and 3,000 homes North and East of Ware) immediately adjacent and potentially well-connected to two towns.
- Option 3 - West of Sawbridgeworth (3,000 homes) is not well located in relation to the town centre and railway station. Development would need to provide significant improvements in passenger transport in the form of local bus routes in order to affect a change in travel behaviour.
- Option 4 - East of Stevenage (5,000 homes) is not well connected to the town centre, needing significant provision of passenger transport links to reduce travel by car to major road networks and services. In terms of climate change adaptation, it is important to note that water abstraction is an issue for this part of the River Beane, where low flows are common and the river environment is particularly sensitive to changes and pollution.
- Option 5 – Development at this scale in the Gilston Area (5,000 homes) would lead to good potential to incorporate ‘green’ principles, i.e. to build-in low carbon and sustainable transport initiatives.
- Option 6 could perform well, depending upon the location of the new settlement (5,000 homes). A stand-alone settlement could be built upon ‘green’ principles, incorporating district-heating and renewable energy schemes.
- Option 7 performs well in many respects. Development of this scale in the Gilston Area (10,000 homes) could relatively easily incorporate ‘green’ principles, potentially being developed as a ‘flag-ship’ scheme utilising cutting-edge technologies. This option would negate the need for smaller scale developments where there is less potential to follow an ambitious approach to climate change mitigation. Growth at Buntingford (a town where car dependency is likely to remain entrenched) would be avoided.
- Option 8 would involve concentrated growth at three locations (East of Welwyn Garden City, North and East of Ware and in the Gilston Area) and hence performs well from a perspective of ensuring decentralised (low carbon) energy generation and district heating can be designed-in from the outset, along with other low carbon / sustainable transport initiatives.

B.6 Community & wellbeing

- Option 1 - A 3,000 home development in the Gilston Area would provide some community facilities within the development but would be dependent upon the services and facilities provided by nearby towns, particularly for retail purposes. A 450 home development East of Welwyn Garden City would not provide the community benefits necessary to support the development on site, resulting in dependency upon Welwyn Garden City for services and facilities. A 1,800 development North and East of Ware would need to provide at least a secondary school and in order to avoid detrimental affects on the existing town, would need to provide a link road and small retail and employment units. The delivery of these community benefits may make viability and delivery doubtful.

- Option 2 would perform better than Option 1 as each development option would be able to provide more direct community benefits as part of the developments, resulting in less reliance and impact on existing services and facilities. A larger scale development North and East of Ware would more likely be able to fund a link road and the necessary community infrastructure, which would alleviate congestion in the town centre, making the town centre itself more attractive.
- Option 3 would perform less well than Options 1 and 2 on the basis that without development North and East of Ware no new secondary school will be provided. The Hertford and Ware school planning area is in need of at least one new secondary school to provide for existing and future pupils. Due to the constraints around Hertford, such provision would be best provided north of Ware. In terms of Sawbridgeworth (3,000 homes), it is the case that the town would remain to a large extent a 'dormitory' settlement, with residents heavily dependent on Bishop's Stortford and Harlow, particularly for retail and employment purposes. A bypass could exacerbate the situation, i.e. make it less likely that Sawbridgeworth residents would regularly access the town. A 3,000 home development West of Sawbridgeworth would require new primary and secondary school facilities, along with other community services and facilities.
- Option 4 - Development to the east of Stevenage (5,000 homes) would benefit Stevenage residents (through stimulating investment / regeneration in the town centre). Whilst it is not the purpose of the East Herts District Plan to provide for the regeneration needs of neighbouring towns it clearly has a role to play in supporting the ambitions of neighbouring authorities to a certain extent, where these needs can be achieved without detrimental impacts on East Herts itself. Opportunities to provide much needed community benefits, particularly education provision for towns along the A414 corridor would be missed. Development to the east of Stevenage would need to provide community facilities and services as part of the development as the distance from the existing town centre and local employment would be significant.
- Option 5 would not realise the community benefits needed for Hertford and Ware (particularly around education provision) and other towns. The potential to connect well to the neighbouring town of Harlow may not be realised, and hence regeneration benefits for Harlow are uncertain. More work would need to be undertaken to assess the viability of this option.
- Option 6 would lead to much needed investment in the social infrastructure of the existing towns. A new settlement would need to be largely self-sufficient providing as many of its community needs as possible within the development.
- Option 7 would not include any development around the existing East Herts towns. As with Option 6, this option would not provide opportunities to enhance community facilities through development. In this respect, this option performs poorly. However, a development of this size would be able to forge good links to the existing town of Harlow, and could in the longer

term act as a catalyst for the regeneration of the town. This development, like Option 4, is likely to provide more for the needs of neighbouring towns at Harlow and Hoddesdon as well as Ware and Sawbridgeworth due to their shared housing market areas.

- Option 8 performs well. These three developments combined would have the potential to provide for the community needs of Hertford, Ware and Sawbridgeworth, as well as Welwyn Garden City, Harlow and Hoddesdon. This level of development would necessitate significant investment in road and waste water infrastructure.

B.7 Economy & employment

B.7.1 Economic factors are an important element in the sustainability appraisal process. Development can open up new employment opportunities through stimulating the creation of new employment sites and through boosting local labour markets.

- Option 1 - Growth East of Welwyn Garden City (450) will not lead to significant benefits in terms of supporting employment growth at the town, as much of the employment in the town is located in the centre and to the west, where connections to the A1(M) are better. There are several employment areas in Ware (1,800 homes), but due to the town's location it is not considered a prime location for further employment development. New employment development, if provided as part of the development at Ware, would be best located near to the A10; however, this location would not be well connected to the town centre and train station. A 3,000 home development in the Gilston Area would not provide additional strategic employment opportunities. It could however, make existing businesses in the A414 corridor more viable.
- Option 2 could provide new employment opportunities in the A414 corridor as a larger scale of development East of Welwyn Garden City (1,700 homes) would be more likely to support additional small scale employment. A larger scale development North and East of Ware (3,000 homes) would also make it more viable to provide small scale employment near to the A10, which would be more attractive if a link road was created to serve the development.
- Option 3 - Regardless of the size of development West of Sawbridgeworth (3,000 homes in this case), it is unlikely that this location will provide strategic employment opportunities, as compared to the neighbouring larger centres of Bishop's Stortford and Harlow, Sawbridgeworth is not seen as an attractive location for businesses.
- Option 4 would lose the potential to enhance employment opportunities along the A414 corridor to the south of the district. The A414 corridor is a key connective transport route between the life science industries stretching from Harlow, Ware and Welwyn Garden City through to Stevenage. New employment growth within this corridor has the potential to enhance this employment cluster further. Furthermore, employment growth in the A414 corridor could support the employment ambitions of Broxbourne Borough

Council, in particular, those of expanding the Brookfield Shopping Centre and Park Plaza Employment Areas. In terms of Stevenage itself, the town is a major draw for residents who live in East Herts settlements and commute to the town to work. Stevenage has a highly successful employment area in Gunnels Wood, but this is concentrated along the A1(M) corridor. It is likely that development of this scale to the east of the town would provide small scale employment opportunities only given the distance and lack of connectivity this location would have to the A1(M) corridor.

- Option 5 would also fail to support the achievement of employment growth along the A414 corridor. Development of 5,000 homes in the Gilston Area would not be likely to provide deliver strategic employment opportunities, given competition from existing employment areas at nearby Harlow.
- Option 6 would also fail to support the achievement of employment growth along the A414 corridor. The success or attractiveness of employment within a new town would very much depend upon its location, accessibility and connections to neighbouring settlements. Businesses prefer visible accessible locations adjacent to or close to major transport networks.
- Option 7 would concentrate development in one location and would therefore lead to missed opportunities at other towns, including Bishop's Stortford – a town that is associated with considerable opportunities for employment growth given proximity to the M11 and Stansted Airport. Employment development in Bishop's Stortford (as with other towns in the district) would only be delivered as part of a larger residential-led mixed use development. The success of employment in the Gilston Area (10,000 homes) would be dependent upon the links created to nearby Harlow and the M11. It is unlikely that new employment in the Gilston Area could compete against existing businesses in Harlow, including the Enterprise Zone, and so would have to complement the existing offer and maximise connections to the M11.
- Option 8 is the highest growth option being considered. Such a scale of development would support significant employment growth and support existing businesses in the A414 corridor and beyond.

B.8 Historic environment

B.8.1 Historic assets such as scheduled monuments and listed buildings can be protected through sensitive design and layout regardless of the broad spatial strategy. However, if the topic is extended to include the setting of towns then some differentiation between the alternatives is possible. 'Concentration' options would potentially impact places less.

- Option 1 - Smaller scale development in the Gilston Area (3,000) should be able to avoid harm to historic assets, and at this scale the relationship to Harlow would be ambiguous, which is of historic interest due to its New Town status. Development North and East of Ware (1,800 homes) would significantly affect the market town character of Ware. Although separated from the town centre (which is designated as a Conservation Area), development could lead to indirect effects. A sensitive approach would be

necessary to manage the relationship of new development to the historic parks and gardens of Hanbury Manor and Fanhams Hall. Development East of Welwyn Garden City (450 homes) would be an acceptable continuation of the town's recent eastward expansion (the Panshanger estate to the north-east being the most recent development). Development would be some distance from the town centre, and hence would have a limited impact on the original planned form, which is of historic interest due to its Garden City status.

- Option 2 would see a larger development to the east of Welwyn Garden City (1,700 homes). Whilst development would be contained by major road networks, further eastward expansion of the town could harm the essential character of the Garden City. Similarly, a major extension North and East of Ware would lead to potential impacts over and above those discussed under Option 1.
- Option 3 - A 3,000 home development would wrap around the west of Sawbridgeworth and hence would significantly change the form and function of the small market town, much of which is a Conservation Area.
- Option 4 would perform well. Stevenage (5,000 homes) is also a New Town, which has sprawled eastwards due to the constraints created by the A1(M) to the west of the town. There are few historic assets to the east of the town, and the existing form has no coherent form or layout that new development would need to respect. However, Stevenage is reasonably compact, lying within a natural geographic bowl, and modern development has been changing this characteristic.
- Option 5 performs well. There are several Ancient Monuments and Historic Parks and Gardens in the Gilston Area and development of this scale (5,000 homes) could be master-planned with a view to minimise impacts. The potential impacts of development of this scale in the Gilston Area very much depend upon the location and links across the River Stort valley to the existing built form of Harlow, a New Town designed on a grid system.
- Option 6 performs well as large scale development of more sensitive environments on the edge of towns would be avoided. A new settlement (5,000 homes) could be located to minimise impacts on any historic assets.
- Option 7 performs well in the sense that there would not be a need to allocate sites at sensitive settlement edge locations around Buntingford, Bishop's Stortford, Hertford or Sawbridgeworth and neighbouring towns. All of these towns are associated with historic cores that suffer from traffic congestion to some extent. Buntingford is a particular consideration. A Conservation Area covers much of the northern half of Buntingford and it is recognised that development to the north of Buntingford has the potential to conflict with the important historic landscape of Corneybury to the east of Ermine Street. However, development at this scale in the Gilston Area (10,000 homes) would alter the historic urban form of Harlow.
 - It is also important to highlight that failing to allocate sufficient sites at all settlements could potentially lead to 'planning by appeal' and hence

potentially greater harm to historic environments.

- Option 8 – would lead to a situation whereby the historic character of several towns is significantly altered.

B.9 Housing

B.9.1 Options which achieve a spread of housing across the housing market areas to meet need within each area perform better.

- Option 1 performs well on the basis that growth would be spread across three of the four housing market areas that intersect with the District (i.e. all apart from the Stevenage A1(M) Corridor HMA).
- Option 2 performs slightly worse on the basis that development East of Welwyn Garden City is unlikely to be achievable until after 2021 given the need for prior mineral extraction.
- Option 3 performs poorly on the basis that there are question-marks regarding the delivery of development of this scale and a bypass at Sawbridgeworth. Also, development East of Welwyn Garden City is unlikely to be achievable until after 2021 given the need for prior mineral extraction.
- Options 4, 5 and 6 perform on a par. All would help to ensure that housing need is met within one of the four housing market areas that intersect with the District. However, housing market areas aside, it is worth noting that growth at Stevenage would not serve to support the residential needs of the majority of East Herts residents (who live in the south and east of the district along the A414 corridor).
- Option 7 performs poorly as the failure to allocate deliverable land on the edge of settlements could hinder the achievement of a five year land supply, and hence act as a block to the delivery of housing to meet identified needs. There would be severe missed opportunities to deliver housing early in the plan period at relatively unconstrained sites, e.g. at Hertford West (550 homes) and West of Sawbridgeworth (400 homes). A 10,000 home scheme in the Gilston Area would provide more for the needs of neighbouring towns at Harlow and Hoddesdon (as well as Ware and Sawbridgeworth).
- Option 8 performs well as it is a high growth option. Growth would be spread across three of the four housing market areas that intersect with the District (i.e. all apart from the Stevenage A1(M) Corridor HMA). As such, it could be argued that East Herts is doing it's utmost to ensure that objectively assessed housing needs are met.

B.10 Land

B.10.1 The key issues that need considering within the land topic include the efficiency of use of land⁶⁷, whether there are potential contamination issues, the agricultural quality of land⁶⁸, and how waste issues will be managed.

⁶⁷ However, all developments, regardless of location or option would need to be designed to make the most effective use of land, whilst also providing appropriate community and green infrastructure.

- Option 1 - Development East of Welwyn Garden City would be phased to occur towards the latter part of the Plan period, partly because of the need to ensure mineral extraction is completed prior to development to ensure valuable natural resource opportunities in the adjacent Panshanger Quarry are not prejudiced by development. Also, land to the south of Birchall Lane within East Herts and Welwyn Hatfield Districts is identified as a possible future waste site, which would need to be considered as part of any proposal in this area. North and East of Ware the land is classified as Grade 2 Agricultural Land. This option proposes relatively low development in the Gilston Area, where there is a mixture of Grade 2 and 3 Agricultural Land. Technical studies would be necessary in order to ensure any potential development in this area is not affected by possible land contamination issues relating to the use of Pole Hole and Hollingson Meads quarries as landfill sites in need of restoration.
- Option 2 – The scale of development proposed East of Welwyn Garden City is greater and would therefore need careful planning and phasing in the light of existing and planned mineral extraction and possible future waste site in the Birchall Lane area. A more significant level of development North and East of Ware would have greater land-take of Grade 2 Agricultural Land. The requirement to build a link road to facilitate this development could result in considerably greater land-take over a wider area.
- Option 3 proposes land East of Welwyn Garden City, which like Option 2, would need to be phased to take account of mineral extraction. West of Sawbridgeworth (3,000 homes) is classified as Grade 2 agricultural land. The requirement to build a bypass to facilitate this development would have considerably greater land-take over a wider area in order to connect to existing road networks.
- Option 4 performs better than Options 1 – 3. East of Stevenage is classified as Grade 3 Agricultural Land. There are no minerals and waste designations in the vicinity; however, development would need to consider the nearby North of Watton-at-Stone Minerals Block.
- Option 5 proposes 5,000 homes in the Gilston Area, where there is a mix of Grade 2 and 3 Agricultural Land. The additional land-take required by this scale of development would therefore have more of an impact on Grade 2 Agricultural Land, particularly if development is located to avoid possible impacts from the waste sites at Pole Hole and Hollingson Meads quarries.
- Option 6 – It is assumed that a new settlement could be located so as to avoid Grade 2 Agricultural Land and other sensitive areas. Green Belt would also be avoided.

⁶⁸ Grade 2 Agricultural Land is the highest level of classification in the District. It should be noted, that the Agricultural Land Classification system is limited and does not provide a detailed assessment of smaller parcels of land. Within higher grades, there will be areas of land of a poor quality and vice versa. With all development options it will therefore be necessary to undertake more detailed assessments and plan for appropriate mitigation and compensatory improvements where possible.

- Option 5 proposes 10,000 homes in the Gilston Area, where there is a mix of Grade 2 and 3 Agricultural Land. However, the need to develop Grade 2 Agricultural Land elsewhere would be avoided through this option. As this scale of development would require a greater planning and design stage, it could be possible to ensure appropriate land remediation and mitigation measures occur prior to development. It would be possible to avoid Green Belt development to some extent; however, the Green Belt in the Gilston Area serves an important purpose.
- Option 8 would have a significant cumulative impact in terms of the loss of Green Belt / Grade 2 Agricultural Land.

B.11 Landscape

- B.11.1 A key source of evidence-base information is the recently completed Green Belt Review; whilst for Buntingford (which sits outside of the Green Belt) the previously completed Landscape Character Assessment study provides evidence of constraints/opportunities.
- Option 1 – would involve *relatively* small scale growth in the Gilston Area (3,000 homes), North and East of Ware (1,800 homes) and East of Welwyn Garden City. There would be good potential to integrate development within the existing landscape.
 - Option 2 performs well given that development East of Welwyn Garden City can be integrated reasonably well within the current landscape. Key factors include the firm edges provided by the proposed Panshanger Country Park, the internal structure provided by the woodland blocks and Moneyhole Park, and the strengths of Welwyn Garden City in terms of its past and current function and capacity. The area is largely flat and is screened from the wider area. According to the Green Belt Review (2013), boundaries running along the roads are likely to be stronger in Green Belt terms than the existing boundaries along the edge of the residential built-up area of Welwyn Garden City. If the option for development West of Hertford (Area of Search 11) is brought forward as well as development in East of Welwyn Garden City, then there would still be a robust Green Belt buffer preventing coalescence between the two towns. At Ware (3,000 homes) the Green Belt Review demonstrates that the town's boundaries to the North and East are generally considered weak, and hence there is some capacity to accommodate growth. However, parts of the landscape to the north and east of Ware are more sensitive to development due to its topography and presence of historic parks and gardens.
 - Option 3 - The Green Belt review 2013 also indicates that existing Green Belt boundaries West of Sawbridgeworth (3,000 homes) are generally not that clearly defined, which could suggest some potential for growth could be accommodated; however, development of this scale would be out of scale with the character of the existing town. It would require the release of a significant amount of Green Belt land to the west of the town, which would reduce the strategic gap between Sawbridgeworth and Harlow. It is

important to consider that, in the future, growth in the Gilston Area could lead to cumulative effects.

- Option 4 performs poorly. Development would encroach on the Beane Valley which the Landscape Character Assessment study identified as one of the most sensitive landscapes in the District.
- Option 5 performs relatively well as there should be good potential to integrate a 5,000 home development in the Gilston Area within the landscape. A considerable amount of work has gone into considering appropriate masterplans and approaches to integrated green infrastructure.
- Option 6 performs relatively poorly on the assumption that a new settlement would impact significantly on an otherwise open landscape. There could be opportunities through an appropriate masterplanning approach to minimise these impacts, but the need to build in all necessary infrastructure such as road (and possible rail) networks would have a wider landscape impact.
- Option 7 performs well on the basis that growth would be concentrated in the Gilston Area and there would be the potential to avoid development at sensitive urban edge locations. However, it is noted that this scale of development in the Gilston Area would be less able to integrate well within the landscape, given the constraints that exist.
 - Not all of the urban edge locations that would be allocated for development under the other options are 'sensitive'. For example, at Hertford West existing roads and natural features would assist in creating definable boundaries to development. This is similarly the case for North of Bishop's Stortford (given the Bishop's Stortford's bypass), although south of Bishop's Stortford is more sensitive (i.e. there is a risk of encroachment into the countryside).
- Option 8 performs relatively poorly on the basis that it is a high growth option. The in-combination effects of growth at the various locations would be considerable.

B.12 Transport

B.12.1 Traffic congestion is a problem within town centres and at major junctions within the District. There is also a need to consider the potential for an increase in flows in peak periods on the A10 corridor, which could lead to capacity impacts in the Cheshunt area (where signalised junctions already have capacity constraints) as well as Junction 25 of the M25. Another aspect of this topic is that of connectivity to existing settlements and services and the potential to encourage self containment. In this respect, larger developments providing more services and facilities, and those better linked into existing settlements, are more likely to be self-contained, reducing the need to travel by car.

- Option 1 - Ware (1,800 homes) has good road connections to external settlements and is also served by a western A10 bypass, which helps relieve inner routes to some extent; however, due to the constrained development pattern of the central area the town centre suffers from considerable congestion, especially at peak times. The town does however have good rail connections, and bus services serve the town itself, via circular routes, and also connect to wider locations. The feasibility and cost implications of providing a link road from the east of the town to the north A1170/A10 area would need further investigation given the relatively small scale of development under this option. There is also a need for a more detailed understanding of the impacts that development would have on the A10 and M25 junction 25. Moreover, the findings of the currently on-going A414 study would need to be factored in. This option also includes 3,000 homes in the Gilston Area. There is the potential to forge good links to the existing road networks and depending upon location could be potentially well located in terms of access to rail networks. However, this scale of development is unlikely to provide a new link road to the M11 and so transport movements could exacerbate existing issues on major junctions on the A414 and through nearby Harlow.
- Option 2 performs poorly in terms of the larger scale of development to the East of Welwyn Garden City (1,700 homes), as Hertfordshire County Council's Transport Update (November 2013) underlines concerns about the capacity of the A414 and indicates that a significant amount of further transport work is likely to be needed in relation to the impact on the A1(M) junction 4. However, it is the case that development East of Welwyn Garden City would be well connected to the two towns of Welwyn Garden City and Hertford, both of which have rail stations that could be linked by a bus route. The provision of a cycle link through the new Panshanger Country Park would provide a good link, complementing the Cole Green Way cycle route further to the south. At Ware, this larger scale of development (3,000 homes) may make a new link road more viable, which could alleviate some of town centre congestion providing adequate connections could be made to the existing built up area, but the potential impacts of this scale on the A10 and

M25 junction 25 could be considerably greater than under Option 1. Further feasibility work would be required.

- Option 3 performs poorly. Problems of traffic congestion in Sawbridgeworth are well documented. Development on this scale (3,000 homes) would also be likely to reinforce the significant amount of out-commuting that the town experiences now. Whilst the town has a railway station located on the Cambridge to London Liverpool Street line, this is located on the opposite side of the town, increasing the possibility of residents from any new development accessing the station by car, further increasing congestion. The majority of bus routes that serve the town operate along the A1184 corridor with little penetration into existing residential areas. Development in the town would make these services more viable but it is unlikely to justify new or altered routes.
- Option 4 performs well, although growth East of Stevenage (5,000 homes) would have transport implications for Stevenage that would require careful management. The development would be a considerable distance from the town centre and major road networks.
- Option 5 – 5,000 homes in the Gilston Area would necessitate a range of major improvements in order to provide adequate road links to the A414 and nearby Harlow. Further feasibility work would be required to determine whether development of this scale could be delivered without a link road to the M11, without which, transport movements associated with this scale of development could exacerbate existing issues on major junctions on the A414 and through nearby Harlow. Further feasibility work would be required.
- Option 6 could in theory perform well on the basis that it should be possible to locate a 5,000 home new settlement in an area where traffic impacts can be managed and would be planned to accommodate modern transport requirements. A new settlement might be located so as to encourage east-west trips (including commuting for work); however, it is recognised that north-south trips (and hence pressure on the A10) would also be likely. One area that has been considered as a potential location is Little Hadham, where development would help to fund the desired bypass. However, there would be no rail connectivity, limited bus services and a preponderance for people to travel by car to neighbouring Bishop's Stortford for access to services. Having discussed the 'pros', it is important to note that the cost of delivering major new road (and possibly rail) infrastructure is considerable and as such may make this option less deliverable than others, and without such connectivity would instead increase vehicle movements and is therefore assumed to perform poorly at this stage.
- Option 7 performs well on the basis that a 10,000 home development in the Gilston Area would be to a large extent self-contained and would lead to funds being made available for major transport infrastructure.
 - Avoiding the need to allocate land for development (3,950 homes) at Bishop's Stortford could also avoid congestion problems. However, this option would lose the opportunity to create mixed-use developments

around existing towns which would provide local employment opportunities, potentially reducing out-commuting.

- Avoiding the need to allocate land for development at Hertford (750 homes) could lead to some benefits. While its road connections are good, they suffer from congestion, especially at peak times. This is particularly true of the A414 which runs through the town. There is some uncertainty regarding the potential for traffic congestion impacts at Hertford. It is noted that Hertford West is well located to access the town's existing retail, employment, educational and other services.
- Avoiding the need to allocate land for development at Sawbridgeworth (400 homes) could lead to some benefits. The A1184 which runs on a north-south axis through the town suffers from congestion, especially at peak times. The Bishop's Stortford and Sawbridgeworth Urban Transport Plan (UTP), led by Hertfordshire County Council, is due to report in 2014, and this is expected to address the main mitigation measures required across the transport network in the study area.
- Option 8 performs poorly. A 10,000 home development in the Gilston Area in combination with significant growth elsewhere would inevitably add to pressure on the A414 corridor (despite development on this scale likely being to a large extent self-contained).

B.13 Water

- B.13.1 Water is a key issue in East Herts in light of the fact that the sub-region as a whole experiences water scarcity, an issue that will be exacerbated through the effects of climate change and built development increasing demand. Consideration has been given to ensuring water demand and waste water infrastructure capacity can be managed throughout the plan period. It is the statutory duty of water providers to ensure adequate water supply and waste water infrastructure is provided alongside development. It is acknowledged that some rivers are more vulnerable to the effects of over-abstraction, particularly the River Beane and therefore Option 4 would require significant mitigation measures to prevent harm to the chalk stream environment. However, with appropriate mitigation measures in place, none of the Options would result in infrastructure constraints that cannot be overcome by some means and therefore each Option is comparable. There may be greater potential for sustainability features including rainwater harvesting at very large sites. Option 7 performs well on this basis. Option 8 would result in a greater level of development and so could cancel out this efficiency gain.

B.14 Alternatives appraisal summary

- B.14.1 **Table B.2** below seeks to summarise the above discussion in the form of a table 'ranking' the performance of the alternatives in terms of each of the SA topics. It is important to be clear that it is not the intention that the numbers presented in Table B.2 should be tallied-up to give an overall performance score for each of the alternatives. It is not the case that all the topics should be accorded equal weight in decision-making. The intention of alternatives

appraisal is only to highlight the pros and cons of each option, with a view to informing consultation and decision-making. It is important to provide this 'at a glance' summary (with a view to stimulating engagement and debate); however, it is important to bear in mind that the rankings are highly uncertain in many cases. Table B.2 should be read alongside Tables 11.3 and 11.4.

- B.14.2 Table B.2 shows that each option would involve different 'trade-offs' between sustainability topics/objectives. It is evident that there is no clear 'winner' amongst the options. Options 6, 7 and 8 would involve making particularly notable trade-offs (e.g. Option 7 performs very well in terms of environmental topics, but very poorly in terms of socio-economic topics). Options 1 and 2 are notably 'middle of the road', i.e. they don't perform particularly well or particularly badly in terms of any topic.
- B.14.3 Finally it is important to be clear that the Council can justifiably disagree with the findings of the alternatives appraisal for each option. The appraisal was undertaken drawing on a particular framework / evidence-base, as explained in Part 1 of this Report ('What's the scope of the SA?'). Furthermore, as discussed above (Para 11.3.12) the SA has drawn heavily on assumptions (partly with a view to ensuring conciseness and accessibility). Where the Council wishes to disagree with the findings of SA, this will be on the basis of the more detailed analysis presented within the Supporting Document.
- B.14.4 Section 11 of the report discusses the process of appraising alternative options in more detail and the Council's response to the appraisal above is provided in Tables 11.3 and 11.4. It is therefore important that Appendix B is read alongside Section 11.3.

Table B.2: Alternatives appraisal summary table – showing the ranking of alternatives

| SA Topic | 1: The preferred option | 2: Focus on Welwyn Garden City and Ware | 3: Focus on Welwyn Garden City and Sawb'worth | 4: Focus on Stevenage | 5: Focus on the Gilston Area | 6: Focus on a new settlement | 7: Focus on the Gilston Area, avoiding extensions to market towns | 8: High growth at Welwyn Garden City, Ware, and the Gilston Area |
|---------------------------------------|-------------------------|---|---|-----------------------|------------------------------|------------------------------|---|--|
| Air quality | 4 | 4 | 5 | 2 | 3 | 3 | ★1 | 6 |
| Biodiversity and green infrastructure | 2 | 2 | 2 | 3 | 2 | ★1 | 3 | 3 |
| Climate change | 3 | 3 | 4 | 3 | 2 | 2 | ★1 | 2 |
| Community and wellbeing | 3 | 2 | 4 | 4 | 4 | 4 | 5 | ★1 |
| Economy and employment | 3 | 2 | 6 | 5 | 4 | 6 | 8 | ★1 |
| Historic environment | 3 | 4 | 4 | ★1 | ★1 | ★1 | 2 | 5 |
| Housing | 2 | 3 | 3 | 3 | 3 | 4 | 5 | ★1 |
| Land | 2 | 2 | 3 | 2 | 2 | ★1 | 2 | 4 |
| Landscape | 3 | 3 | 3 | 5 | 3 | 2 | ★1 | 4 |
| Transport | 4 | 5 | 5 | 2 | 3 | 6 | ★1 | 7 |
| Water | 2 | 2 | 2 | 2 | 2 | 2 | ★1 | 2 |