

# **Sustainability Appraisal (SA) of the East Herts District Plan**

**SA Report**

September 2016

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## INTRODUCTION

## 1 BACKGROUND

- 1.1.1 AECOM is commissioned to lead on Sustainability Appraisal (SA) in support of the emerging East Herts District Plan. SA is a mechanism for considering and communicating the likely effects of a draft plan, and alternatives, with a view to avoiding and mitigating adverse effects and maximising the positives. SA of Local Plans is a legal requirement.<sup>1</sup>

## 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 transposed into national law EU Directive 2001/42/EC on Strategic Environmental Assessment (SEA).<sup>2</sup>
- 2.1.2 In-line with the Regulations, a report (known as **the SA Report**) must be published for consultation alongside the draft plan that essentially 'identifies, describes and evaluates' the likely significant effects of implementing 'the plan, and reasonable alternatives'.<sup>3</sup> The report must then be taken into account, alongside consultation responses, when finalising the plan.
- 2.1.3 More specifically, the SA Report must answer the following **three questions**:
1. What has Plan-making / SA involved **up to this point**?
    - Including with regards to consideration of 'reasonable alternatives'.
  2. What are the SA findings **at this stage**?
    - i.e. in relation to the draft plan.
  3. What happens **next**?
    - What steps will be taken to finalise the plan?
    - What measures are proposed to monitor plan implementation?

### 2.1 This SA Report<sup>4</sup>

- 2.1.1 This document is the SA Report for the East Herts District Plan, and as such each of the three SA questions is answered in turn below, with a 'part' of the report dedicated to each.
- 2.1.2 Before answering Question 1, two initial questions are answered in order to further 'set the scene': i) What is the plan trying to achieve?; and ii) What's the scope of the SA?

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<sup>1</sup> 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). The Town and Country Planning (Local Planning) (England) Regulations 2012 require that an SA Report is published for consultation alongside the 'Proposed Submission' plan document.

<sup>2</sup> The SA process incorporates the SEA process. SA and SEA are one and the same process, differing only in terms of substantive focus. SA has an equal focus on all three 'pillars' of sustainable development (environment, social and economic).

<sup>3</sup> Regulation 12(2) of the Environmental Assessment of Plans and Programmes Regulations 2004

<sup>4</sup> See Appendix I for further explanation of the regulatory basis for answering certain questions within the SA Report, and a 'checklist' explaining more precisely where within this report certain regulatory reporting requirements are met.

### 3 WHAT IS THE PLAN SEEKING TO ACHIEVE?

#### 3.1 Overview

3.1.1 The Plan, once adopted, will present a spatial strategy for the District up to 2033. It will determine the distribution of various kinds of development and will present a policy framework for determining planning applications. The plan must be in line with the National Planning Policy Framework (NPPF), and also take into consideration 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 to cooperate with Epping Forest, Harlow and Uttlesford Councils. Together East Herts, Epping Forest, Harlow and Uttlesford comprise the West Essex and East Hertfordshire Housing Market Area.

#### 3.2 Plan objectives

3.2.1 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 the young, the elderly and vulnerable people.
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 to protect and enhance the historic environment of East Herts, 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, inter alia, creating new green spaces and networks of high quality green space for both recreation and wildlife.
9. To ensure that development occurs in parallel with provision of the necessary infrastructure, including enhancement and provision of green infrastructure.

##### What's the plan not trying to achieve?

3.2.2 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.

## 4 WHAT'S THE SCOPE OF THE SA?

### 4.1 Introduction

4.1.1 The aim here is to introduce the reader to the scope of the SA, i.e. the sustainability issues / objectives that should be a focus of (and provide a broad methodological framework for) SA.

4.1.2 Further information on the scope of the SA - i.e. a more detailed review of sustainability issues/objectives as highlighted through a review of the sustainability 'context' and 'baseline' - is presented in **Appendix II**.

#### Consultation on the scope

4.1.3 The Regulations require that *"When deciding on the scope and level of detail of the information that must be included in the Environmental Report [i.e. the SA scope], the responsible authority shall consult the consultation bodies"*. In England, the consultation bodies are Natural England, the Environment Agency and Historic England.<sup>5</sup> As such, these authorities were consulted on the SA scope in August 2010.<sup>6</sup> Since that time, the SA scope has evolved as new evidence has emerged; however, the scope remains fundamentally similar to that agreed through the dedicated scoping consultation in 2010.

N.B. Stakeholders are also welcome to comment on the SA scope at the current time. Any comments received will be taken into account in due course (see Part 3 'Next Steps').

### 4.2 Key issues / objectives

4.2.1 Table 4.1 presents the sustainability objectives established through SA scoping, i.e. in-light of context/baseline review and consultation. Objectives are grouped under nine topic headings.

4.2.2 Taken together, the sustainability topics and objectives presented in Table 4.1 provide a methodological 'framework' for appraisal.

<sup>5</sup> 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 programmes.'*

<sup>6</sup> The SA Scoping Report is available at: <http://www.eastherts.gov.uk/sa>

Table 4.1: Sustainability topics and objectives (i.e. the SA framework)

Topics	Objectives
Air quality	<ul style="list-style-type: none"> <li>Improve air quality in AQMAs and other areas exceeding air quality objective levels.</li> <li>Protect problem areas / areas of known sensitivity from traffic congestion and polluting activities.</li> </ul>
Biodiversity & Green Infrastructure	<ul style="list-style-type: none"> <li>Protect and enhance areas designated for nature conservation including key biodiversity areas and Local Wildlife Sites.</li> <li>Plan for multi-functional green infrastructure at different scales, including within major developments and across administrative boundaries.</li> </ul>
Climate change	<ul style="list-style-type: none"> <li>Aim to lower per capita GHG (greenhouse gas) emissions.</li> <li>Increase the amount of energy generated by decentralised or renewable sources.</li> <li>Minimise the impact of development on surface water flooding and avoid development within areas of flood risk.</li> <li>Support water efficiency and energy efficiency.</li> </ul>
Community and wellbeing	<ul style="list-style-type: none"> <li>Meet the needs (including health and social care) of a growing and ageing population.</li> <li>Plan for those with specialist needs, including the disabled population.</li> </ul>
Economy and employment	<ul style="list-style-type: none"> <li>Support targeted job creation, e.g. capitalising on expansion of Stansted Airport.</li> <li>Match job creation with the provision of appropriate facilities and infrastructure.</li> <li>Support greater rates of gross value added (GVA).</li> </ul>
Historic environment	<ul style="list-style-type: none"> <li>Protect the District's historic environmental assets (both designated and non-designated) from inappropriate development.</li> <li>Capitalise on the potential that historic assets have to contribute towards place-shaping (e.g. as the inspiration for design).</li> <li>Recognise the potential for unknown historic sites to act as a constraint on development.</li> </ul>
Housing	<ul style="list-style-type: none"> <li>Provide for sufficient new dwellings over the plan period, including specialist housing.</li> <li>Increase the provision of affordable housing.</li> <li>Provide additional Gypsy and Traveller pitches, in appropriate locations, in line with up-to-date evidence on need.</li> </ul>
Land	<ul style="list-style-type: none"> <li>Support efficient use of land, including development of previously developed land (PDL).</li> <li>Support the remediation of contaminated land.</li> <li>Consider waste minimisation at the design stage of development.</li> </ul>
Landscape	<ul style="list-style-type: none"> <li>Protect and enhance the district's landscape character areas and key landscape assets.</li> <li>Ensure that landscape assets, such as hedgerows, are protected and integrated within development (to maximise their potential amenity value).</li> </ul>
Transport	<ul style="list-style-type: none"> <li>Facilitate a modal shift away from the private car, with a particular focus on reducing commuting by car.</li> <li>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.</li> <li>Seek to improve rural accessibility to bus services.</li> </ul>
Water	<ul style="list-style-type: none"> <li>The sub-region experiences water scarcity, and this is likely to be exacerbated due to climate change and future growth and development.</li> <li>Support reduced per capita consumption of water.</li> <li>Distribute development taking into account water supply and sewerage infrastructure.</li> <li>Prevent contamination of the major aquifer beneath East Herts.</li> </ul>



**PART 1: WHAT HAS PLAN-MAKING / SA INVOLVED UP TO THIS POINT?**

## 5 INTRODUCTION (TO PART 1)

- 5.1.1 Local plan-making has been underway since 2008, with a number of consultations having been held under Regulation 18 of the Local Planning Regulations prior to this current stage, which is under Regulation 19, and a number of Interim SA Reports having been published.
- 5.1.2 Rather than recap the entire 'story' in detail, the intention here is to explain the work undertaken in 2016, which led to the development of the draft plan that is currently the focus of appraisal (see Part 2, below) and is currently published under Regulation 19.
- 5.1.3 Specifically, in-line with regulatory requirements, there is a need to explain how work was undertaken to develop and then appraise **reasonable alternatives**, and how the Council then took into account appraisal findings when finalising the draft plan for publication.
- 5.1.4 More specifically still, this part of the report sets out to present information regarding the consideration of reasonable **alternative spatial strategies**, i.e. alternative approaches to the allocation of land to meet housing (and economic) needs.

N.B. This information is important given regulatory requirements,<sup>7</sup> specifically the requirement to present (within the SA Report) an appraisal of 'reasonable alternatives' and 'an outline of the reasons for selecting the alternatives dealt with'.

### What about other plan issues?

- 5.1.5 Whilst the plan objectives (see chapter 3, above) are numerous and cover a range of issues, it is apparent that the key issue/objective<sup>8</sup> relates to the identification of land to meet housing needs. Hence it is reasonable<sup>9</sup> that alternatives appraisal should focus on this matter. Whilst the plan is set to address a range of other issues, it was considered reasonable and proportionate that policy approaches for other issues were not the focus of *formal* alternatives appraisal, in the run up to finalising the Proposed Submission plan for publication.
- 5.1.6 Alongside development of the spatial strategy, work was also undertaken to develop thematic, district-wide development management (DM) policies. DM policy-making has not been the focus of alternatives appraisal; however, that is not to say that SA work has not fed-in. The 2014 Interim SA Report presented an appraisal of the draft plan (which included draft DM policies) as it stood at the time, and appraisal findings have been taken on-board. Part 2 of this report - which presents the appraisal of the draft plan as it stands at the current time - explains the influence of the 2014 draft plan appraisal.

### Structure of this part of the report

- 5.1.7 This part of the report is structured as follows:
- Chapter 6** - explains reasons for selecting the alternatives dealt with
- Chapter 7** - presents an appraisal of the reasonable alternatives
- Chapter 8** - explains reasons for selecting the preferred option

<sup>7</sup> Environmental Assessment of Plans and Programmes Regulations (2004)

<sup>8</sup> In line with the Environmental Assessment of Plans and Programmes Regulations (2004), a decision on what 'reasonably' should be the focus of alternatives appraisal should be made in-light of the plan objectives. In the case of the East Herts District Plan, it is suggested that plan objectives (2) and (3), which relate to meeting objectively assessed housing needs, are somewhat overarching.

<sup>9</sup> Recent case-law (most notably Friends of the Earth Vs. Welsh Ministers, 2015) has established that planning authorities may apply discretion and planning judgement when determining what should reasonably be the focus of alternatives appraisal, recognising the need to apply a proportionate approach and ensure an SA process / report that is focused and accessible.

## 6 DEVELOPING THE REASONABLE ALTERNATIVES

### 6.1 Introduction

6.1.1 This chapter explains the work undertaken in 2016 to develop ‘reasonable’ spatial strategy alternatives. This chapter:

- explains the **context and background** to alternatives development; and then
- explains the **process followed in 2016** in order to establish reasonable alternatives.

### 6.2 Context and background

#### Issues and Options (2010)

6.2.1 Two rounds of public engagement in **2008** 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.<sup>10</sup>

6.2.2 The Interim SA Report<sup>11</sup> set out an appraisal of six distinct development strategy options<sup>12</sup> and six housing distribution options<sup>13</sup>. Alternative growth options were also appraised for the following key areas: Bishop’s Stortford; Buntingford; Hertford; Sawbridgeworth; Ware; Villages; and North of Harlow.

6.2.3 Appraisal findings from 2010 fed into subsequent 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).

#### Preferred Options (2014)

6.2.4 In 2012 the Council embarked on a ‘**stepped**’ approach to spatial strategy-making. Each step corresponded 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](http://www.eastherts.gov.uk/supportingdocument).

- **Step 1** involved exploring the nature of the task.
  - Consideration was given to progress on the District 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** 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** involved developing a series of assessment criteria under ‘topic’ headings.
  - The topic headings were: 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

<sup>10</sup> See [www.eastherts.gov.uk/issuesandoptions](http://www.eastherts.gov.uk/issuesandoptions)

<sup>11</sup> See [http://www.eastherts.gov.uk/media/pdf/p/f/SA\\_April\\_2010.pdf](http://www.eastherts.gov.uk/media/pdf/p/f/SA_April_2010.pdf)

<sup>12</sup> **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.

<sup>13</sup> **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.

facilities, Agricultural land, Environmental stewardship, and Noise.

- These topic headings were identified taking into account the established SA Framework (see discussion above).
- **Step 4** 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 area in isolation; and Sieve 2 looked at combinations around each of the main towns.<sup>14</sup>
  - 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 removed from further consideration; and/or the ‘scale (i.e. the level of growth) assumption’ was modified.
- **Step 5** involved further sieving of the shortlisted areas of search taking into account potential impacts on urban form and economic development.
- **Step 6** 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.

6.2.5 Step 3 – 6 are important from an SA perspective as they essentially involved identifying and then appraising **site options**.<sup>15</sup> As such, sub-sections below are given over to explaining more about the process of 1) identifying reasonable site options (‘development options’); and then 2) sieving/appraising.

6.2.6 Subsequent to sieving/appraising development options (i.e. as **Step 7**) the Council was able to identify<sup>16</sup> 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 and appraised. The appraisal of ‘reasonable alternatives’ is important from a perspective of SEA Directive compliance.<sup>17</sup> As such, sub-sections below are given over to explaining more about the process of 1) identifying reasonable alternatives; and 2) appraising reasonable alternatives.

6.2.7 To recap, the following subsections explain work undertaken between 2012 and 2014 under the following headings:

1. Identifying development options
2. Appraising development options
3. Establishing spatial strategy alternatives
4. Appraising spatial strategy alternatives

<sup>14</sup> 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.

<sup>15</sup> It is generally accepted that all reasonable site options should be appraised in isolation prior to determining a preferred approach to site allocations.

<sup>16</sup> 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](http://www.eastherts.gov.uk/strategyreport).

<sup>17</sup> The SEA Directive requires that development of the draft plan is preceded by appraisal of ‘reasonable alternatives’.

### Identifying development options (2014)

- 6.2.8 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.
- 6.2.9 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 areas of search where the area was identified as having no potential to accommodate strategic-scale development given, for example, protected public-open space or extensive flood plain.<sup>18</sup>
  - 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.<sup>19</sup>
  - 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 Supporting Document explain how an initial list of 14 was refined-down via a process of criteria-based assessment.
- 6.2.10 It is also important to note that the development 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.

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<sup>18</sup> 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.

<sup>19</sup> 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.



Establishing spatial strategy alternatives (2014)

- 6.2.14 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.
- 6.2.15 The preferred approach, as it stood at the time, involved 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.
- 6.2.16 A range of strategic considerations fed into the identification of alternatives - as discussed in **Box 7.1**. The preferred approach, and alternatives, are shown in **Table 7.1**.

*Box 6.1: Strategic considerations that influenced identification of spatial strategy alternatives in 2013/14*

The starting point for identifying alternatives was the question of **housing quantum**, i.e. the number of new homes necessitated. The evidence-base pointed strongly towards a need to deliver at least 15,000 homes over the plan period; however, lower/higher growth also necessitated consideration:

- 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.
- A *higher growth approach* might potentially be necessitated under a scenario whereby the unmet needs of neighbouring authorities must (in accordance with the Duty to Cooperate) be accommodated within East Herts.<sup>20</sup>

Subsequent to considering the question of alternative growth quantum, there was a need to consider the question of **distribution**.

- Brownfield/greenfield: Available brownfield sites are few in number; hence a greater focus on brownfield land is not a reasonable option.
- 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 to avoid urban extensions into the Green Belt and instead deliver 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.<sup>21</sup> Development at scale helps to achieve a degree of self-containment, not least there is greater potential to fund the delivery of infrastructure.
- Urban areas: The preferred approach to growth within urban areas is fairly 'set in stone'; hence there is no ('reasonable') need to give explicit consideration to alternatives.
- Villages: The preferred approach to growth at villages is fairly 'set in stone'; hence there is no ('reasonable') need to give explicit consideration to alternatives.<sup>22</sup>
- Greenfield allocations vs. broad locations: Most of the greenfield allocations on the edges of the market towns are fairly 'set in stone'; hence it is appropriate to focus on the appraisal of alternative approaches to delivering broad locations (i.e. larger schemes that are yet to be worked-up in detail). It is necessary to consider both alternative broad locations and alternative approaches at particular broad locations.
- New settlements: It may transpire that a new settlement is necessary in order to ensure sufficient housing supply. However, 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. Rather than arbitrarily picking one of the possible new settlement locations, it is appropriate to test the *concept* of 'a new settlement in a transport corridor'.

Ultimately, seven alternatives to the preferred approach were developed, making eight alternatives in total.

The 2014 Interim SA Report explained 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 was considered sufficient to 'tease out' all of the key sustainability issues / arguments, and inform plan-making.

<sup>20</sup> There is much uncertainty regarding whether or not East Herts is in a better position than neighbouring authorities to accept growth.

<sup>21</sup> Dispersal approaches were considered as part of the 2010 Issues and Options consultation (and within the Interim SA Report published alongside the consultation document).

<sup>22</sup> Early work on plan development (see, for example, the 2010 Interim SA Report) 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'.



Table 6.1: Alternative spatial strategies for appraisal as established in 2014

Option	Total homes <sup>23</sup>	Allocations	Broad locations	Notes
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	The preferred approach
2	15,382	5,580 homes	1,700 homes East of Welwyn Garden City 3,000 North and East of Ware	Maximising <sup>24</sup> growth at two of the Broad Locations
3	15,382	5,580 homes	1,700 homes East of Welwyn Garden City 3,000 homes West of Sawbridgeworth (with a bypass)	Maximising growth at two of the Broad Locations
4	15,682	5,580 homes	5,000 homes East of Stevenage	A major 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.
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	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.
7	15,102	0 homes	10,000 homes in the Gilston Area	A higher level of development in the Gilston Area and no urban extensions to the market towns; despite the fact that such extensions are, in fact, necessary in order to ensure housing supply in the short-term. This option is indicative. It is recognised that there are potentially numerous ways of achieving a 15,000 home target.
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	Higher levels of growth which might result if the Council has to accept the unmet need of other districts. This option is also indicative.

<sup>23</sup> All options assume 5,102 dwellings from 'other' supply sources.

<sup>24</sup> i.e. this is the scale of growth that is possibly deliverable. Certainty around delivery on this scale before 2031 is, however, relatively low.

Appraising alternatives (and taking account of appraisal findings) in 2014

- 6.2.17 The Interim SA Report published in 2014 alongside the Preferred Options consultation document presented an appraisal of the eight alternative spatial strategies. Summary appraisal findings were presented within the main body of the report, whilst detailed appraisal findings were presented within an appendix. The main body of the report also presented the Council's response to appraisal findings, i.e. justification for the preferred approach.
- 6.2.18 **Appendix 4** of this report presents summary alternatives appraisal findings from 2014.
- 6.2.19 The ultimate summary of the 2014 alternatives appraisal table comprised a single table that ranked the alternatives, in terms of each of the sustainability topics (that comprise the SA framework). This 'summary of the summary' table is presented below - see **Table 7.2**.
- 6.2.20 The table was presented in 2014 alongside notable caveats, and it is appropriate to repeat a fundamental caveat at the current time:

*“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. If it is a case that infrastructure delivery lags behind housing development, or does not materialise at all, then ‘self-containment’ will not be achieved.”*

Table 6.2: Ranking the performance of the 2014 spatial strategy 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	5	5	7	2	3	3	★1	8
Biodiversity and green infrastructure	2	2	2	5	2	★1	5	5
Climate change	5	5	8	5	2	2	★1	2
Community and wellbeing	3	2	4	4	4	4	8	★1
Economy and employment	3	2	6	5	4	6	8	★1
Historic environment	5	6	6	★1	★1	★1	4	8
Housing	2	3	3	3	3	7	8	★1
Land	2	2	7	2	2	★1	2	8
Landscape	3	3	3	8	3	2	★1	7
Transport	4	5	5	2	3	7	★1	8
Water	2	2	2	2	2	2	★1	2

### 6.3 Developing reasonable alternatives in 2016

### 6.4 Introduction

6.4.1 Since the Preferred Options consultation in 2014, the evidence base and further technical work has progressed. It was therefore recognised that further work was needed to refine understanding of spatial strategy alternatives (i.e. continue the process of refinement discussed above)<sup>25</sup> and ultimately arise at reasonable alternatives for appraisal / consultation.

### 6.5 Developing Reasonable Alternatives for the West Essex and East Hertfordshire Housing Market Area

#### Strategic Housing Market Assessment

6.5.1 East Herts Council, Epping Forest District Council, Harlow Council and Uttlesford District Council have a substantial history of co-ordinated working on several planning issues, including on assessing housing need and planning for future growth.

6.5.2 Reflecting this, three joint Strategic Housing Market Assessments (SHMAs) have been undertaken for the four authority areas since 2010, which have sought to establish Objectively Assessed Housing Need (OAHN) for the sub-region. The most recent SHMA was undertaken in 2015<sup>26</sup>. This identified the OAHN in the West Essex and East Hertfordshire Housing Market Area to be 46,100 dwellings over the 22-year period between 2011 and 2033, equivalent to an average of 2,095 dwellings per year. This includes the Objectively Assessed Need of Affordable Housing for 13,600 dwellings over the same period, equivalent to an average of 618 per year.

6.5.3 For the four authority areas, this concluded that the OAHN over the 22-year period for each of the four authorities is as follows:

- 16,400 dwellings in East Hertfordshire (745 per year)
- 11,300 dwellings in Epping Forest (514 per year)
- 5,900 dwellings in Harlow (268 per year)
- 12,500 dwellings in Uttlesford (568 per year)

6.5.4 In addition, the SHMA highlights that DCLG's 2012-based household projections show an increase from 175,189 to 224,827 households in West Essex and East Hertfordshire over the 22-year period 2011-33. The SHMA stated that *"PPG [Planning Practice Guidance] identifies that the starting point for estimating housing need is the CLG 2012-based household projections. For the 22-year period 2011-33, these projections suggest an increase of 49,638 households across the West Essex and East Hertfordshire HMA: an average growth of 2,256 households each year, comprised of 779 in East Hertfordshire, 653 in Epping Forest, 326 in Harlow and 498 in Uttlesford."*

6.5.5 In August 2016, Opinion Research Services (ORS) updated the overall housing need to take into account more recent information including the DCLG 2014-based household projections and suggested a revised OAHN for the HMA of 54,608 disaggregated as follows:

- 19,427 dwellings in East Hertfordshire
- 13,278 dwellings in Epping Forest
- 7,824 dwellings in Harlow
- 14,080 dwellings in Uttlesford

<sup>25</sup> National Planning Practice Guidance is clear that understanding of alternatives should be 'refined' over time through the SA process.

<sup>26</sup> Opinion Research Services (September 2015) West Essex and East Hertfordshire Strategic Housing Market Assessment: Report of Findings <http://www.uttlesford.gov.uk/CHttpHandler.ashx?id=5344&p=0>

### Joint Economic Report

- 6.5.6 Alongside the SHMA, the four authorities commissioned a study to consider the Objectively Assessed Economic Need of the Functional Economic Market Area (FEMA)<sup>27</sup>, which considers a wider area than that of the HMA<sup>28</sup>. This was published in 2015 and gives an up to date assessment of jobs growth need in the FEMA for the period 2011-2033.
- 6.5.7 The study identified a net jobs growth per year of 1,890 for the Functional Economic Market Area. For the four authority areas, this translated as the following ranges in jobs growth:
- 435 – 505 in East Hertfordshire
  - 400 – 455 in Epping Forest
  - 325 – 335 in Harlow
  - 665 – 675 in Uttlesford

### Strategic Spatial Options Study

- 6.5.8 In response to a need to fulfil Duty to Cooperate requirements, and to adhere to the spirit of the NPPF which requires that local authorities ‘... *demonstrate evidence of having effectively cooperated to plan for issues with cross-boundary impacts when their Local Plans are submitted for examination*<sup>29</sup>’ the West Essex and East Hertfordshire authorities explored options for meeting Objectively Assessed Need in the sub-region. This includes the consideration of a range of locational options for delivering housing.
- 6.5.9 To support this process the four authorities commissioned a study which:
- identified options for spatially distributing the housing need identified in the SHMA (2015), the DCLG 2012-based household projections and the August 2016 advice from ORS across the HMA, based on an analysis of the policy context and evidence base;
  - provided an evidence-based Sustainability Appraisal setting out the anticipated significant positive and negative impacts of each option (including opportunities to deliver infrastructure, employment development, regeneration benefits, etc.) and potential mitigation measures (where relevant); and
  - facilitated the development of a draft Memorandum of Understanding (MoU) between the four authorities which sets out a high level agreement as to how new housing should be distributed across the HMA.
- 6.5.10 These activities are collectively referred to as the Strategic Spatial Options Study. It is anticipated that the study will provide a critical piece of evidence for demonstrating to the Planning Inspectorate at the independent examinations into the four local plans that the key strategic issue of housing growth has been robustly addressed and that the Duty to Cooperate has been clearly complied with.

### Spatial Distribution Options Considered

- 6.5.11 As part of the Strategic Spatial Options Study, a range of spatial options for distributing housing across the HMA were considered. Three levels of growth were considered:
- ~46,100 new homes in line with the 2015 SHMA
  - ~49,638 new homes in line with the DCLG 2012-based household projections

<sup>27</sup> Hardisty Jones Associates (September 2015) Economic Evidence to Support the Development of the OAHN for West Essex and East Herts <http://www.uttlesford.gov.uk/CHttpHandler.ashx?id=5438&p=0>

<sup>28</sup> The FEMA covers the four authority areas, but also includes: Broxbourne, a fringe area comprising all of the immediately adjacent local authorities; and a link to central London

<sup>29</sup> Paragraph 181, National Planning Policy Framework

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/6077/2116950.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf)

- ~57,400 new homes in line with early advice from ORS in light of more recent information including the DCLG 2014-based household projections (NB this figure was later revised down to 54,608 – see above)

6.5.12 In particular, the spatial options explored different levels of growth in and around Harlow, a key urban centre within the HMA:

- ~10,500 (lower growth)
- ~14,150 (medium growth)
- ~17,650 (higher growth)
- ~20,985 (maximum growth)

6.5.13 The study identified the following reasonable strategic spatial options:

- **Spatial options to deliver ~46,100 new homes across the SHMA area:**
  - A. Each authority meets its OAHN within its own boundaries (NB ~14,150 at Harlow)
  - B. Less development at Harlow and accelerated development on the A120 (NB ~10,500 at Harlow)
  - C. Less development at Harlow and two new settlements in East Herts<sup>30</sup> (NB ~10,500 at Harlow)
  - D. Maximum growth at Harlow (NB ~17,650 at Harlow; reduced allocations in constrained areas of the HMA<sup>31</sup>)
- **Spatial option to deliver ~49,638 new homes:**
  - E. Higher growth across the HMA (NB ~17,650 at Harlow; allocations in constrained areas)
- **Spatial option to deliver ~57,400 new homes:**
  - F. Maximum growth across the HMA (NB ~ 20985 at Harlow)

#### Identifying the Preferred Spatial Option for the HMA

6.5.14 To assist in discharging the Duty to Co-operate, the Co-operation for Sustainable Development Member Board (the Co-op Member Board) considered six options (A-F) for accommodating new housing development across the West Essex and East Hertfordshire Housing Market (HMA) area up to 2033. These six options varied in terms of: (i) the overall quantum of development to be provided for across the HMA (ranging from ~48,300 to ~56,250 new houses); and (ii) the spatial distribution of that development, in particular the amount of new housing to be accommodated in around Harlow town. Varying the overall quantum of development allowed the Co-op Member Board to test the implications of different levels of growth including: 46,100 (the figure for objectively assessed housing need in the Strategic Housing Market Assessment, SHMA); 49,638 (a figure based on the CLG 2012-based household projections); and 54,608 (an updated OAHN figure provided by Opinion Research Services, ORS, in light of recent information including the CLG 2014-based household

<sup>30</sup> The possibility of one of the two new settlements being located in Epping was discussed. However, Epping argued that 1616 may be potentially allocated at North Weald and this position would only be reviewed if/when aviation is found to be unviable in the longer term; no sites of sufficient size for a new settlement have been put forward in the remainder of the District and much of the east of the District is relatively rural with limited public transport connections

<sup>31</sup> Figures reduced across settlements in East Herts (Bishop's Stortford, Hertford, Sawbridgeworth and Ware) and Epping Forest to minimise Green Belt incursion; Duty to Cooperate developments at East of Stevenage and East of Welwyn unchanged

projections). Varying the spatial distribution of development allowed the Co-op Member Board to explore the implications of focusing different levels of development in different parts of the HMA. In particular, the options varied in terms of the level of development located in and around Harlow, the HMA's key urban centre.

- 6.5.15 The implications of the six options (A-F) were investigated through four means:
1. Transport modelling to explore their implications in relation to traffic flows and the need for road upgrades or additional highways infrastructure
  2. Sustainability Appraisal to assess their implications in relation to a range of topics including biodiversity, community and wellbeing, historic environment, landscape and water
  3. Habitat Regulations Assessment to determine their implications, if any, for the integrity of the Epping Forest Special Area of Conservation
  4. Strategic Site Assessment to assess the suitability of the potential sites in and around Harlow that could deliver new housing development

6.5.16 In light of this investigation, the Co-op Member Board identified a Preferred Spatial Option to deliver c. 51,000 new homes across the HMA to 2033 broken down in Table 6.3 below.

*Table 6.3: Preferred Strategic Spatial Option for the HMA*

Local authority	Net new dwellings 2011-2033
East Hertfordshire District Council	c. 18,000
Epping Forest District Council	c. 11,400
Harlow District Council	c. 9,200
Uttlesford District Council	c. 12,500
<b>Total across the HMA</b>	<b>c. 51,100</b>
...of which the area in and around Harlow* will provide	c. 16,100

\*'in and around Harlow' refers to development in Harlow town as well as around Harlow in adjoining districts

**Reasons for choosing the Preferred HMA Spatial Option**

- 6.5.17 The Preferred Spatial Option was chosen by the Co-op Member Board as the most sustainable choice for the HMA on the basis that:
- At c. 51,000 new homes, the planned level of housing growth is higher than both the established OAHN within the published 2015 SHMA (46,100) and the figure based on the CLG 2012-based household projections (49,638). It is lower than ORS' estimated OAHN figure taking into account recent information including the CLG 2014-based household projections (54,608) but nonetheless represents good progress towards this higher figure. Overall, the figure of c. 51,000 indicates that the four HMA authorities are positively seeking opportunities to meet the development needs of their areas in line with the National Planning Policy Framework (NPPF) and, furthermore, significantly boosting the supply of housing (NPPF, para. 47).
  - Harlow represents the most sustainable location within the HMA at which to concentrate development given its role as a sub-regional centre for employment (especially in technology); its Enterprise Zone status; the need to rejuvenate the town centre; the opportunity to capitalise on its transport connections (for example, good rail links to

London, Stansted Airport and Cambridge) and deliver north-south and east-west sustainable transport corridors traversing the town; its important location on the London – Stansted – Cambridge corridor; and, above all, the wider economic growth aspirations for the town.

- The transport modelling undertaken to date demonstrates that growth of between 14,000 and 17,000 new homes in and around Harlow can be accommodated provided that the mitigation measures set out in the Draft Highways and Transportation Infrastructure MOU are delivered during the plan period. Evidence suggests that growth beyond 2033 is likely to be possible subject to further transport modelling and the identification and delivery of additional strategic highway mitigation measures.
- The Strategic Site Assessment indicates that sufficient suitable strategic sites are available in and around Harlow to deliver the figure of c. 16,100 (together with sites either already completed or granted planning permission as well as urban brownfield sites).

### Developing Reasonable Alternatives for East Hertfordshire District

- 6.5.18 As explained earlier in this Chapter, the Council embarked on a ‘stepped’ approach to spatial strategy-making in 2012. Each of the steps corresponded with a Chapter of the Supporting Document, which included the identification and appraisal of site options (Steps 3 to 6). This work informed the selection of site allocations as well as the development of the preferred spatial strategy as set out in the Preferred Options Document in 2014.
- 6.5.19 Since the end of the Preferred Options consultation in May 2014, a range of new information and evidence has emerged, including but not limited to a Green Belt Review (2015), updated Strategic Land Availability Assessment (SLAA) (Aug 2016), further transport modelling and the progression of various Neighbourhood Plans. This new evidence along with the representations received at the Preferred Options stage have been considered by the Council and informed further work in relation to the development and refinement of spatial strategy options at the HMA as well as District level.
- 6.5.20 This further work takes the form of a number of settlement appraisals that seek to continue the ‘stepped’ approach and narrative of the Supporting Document, in particular Chapters 4 to 6, by detailing information and evidence for each settlement which has emerged since the Preferred Options consultation ended in May 2014. This includes all of the sites submitted to the Council through the ‘Call for Sites’ process and considered through the updated SLAA Report (Aug 2016).
- 6.5.21 It is important to note that the Council has led on work to explore site options - i.e. the pool of sites that are available, deliverable and potentially suitable for allocation through the plan - however, for completeness, reasonable site options identified through the updated SLAA (2016) have also been appraised against the SA framework - see **Appendix V**. The site options appraisal work that has been completed to date in Appendix V is limited in its scope, but proportionate in the view of AECOM and the Council.
- 6.5.22 As part of the further work undertaken by the Council presented in the settlement appraisals, consideration was given to potential alternative options for development. This took into consideration all the updated technical work (Green Belt Review, updated SLAA), consultation responses and current development situation (planning applications). The detail of this work is presented in the settlement appraisals which are available separately on the Council’s website. A brief summary of this work is presented below. It is important to remember that all of the reasonable site options have been considered through the SA process with the findings presented in **Appendix V** of this SA Report.



### Settlement Appraisals

#### Bishop's Stortford

- 6.5.23 The Preferred Options District Plan proposed development of between 3,697 and 4,447 homes in Bishop's Stortford plus an element of windfall. On the basis of the assessments contained in the Supporting Document, and the rest of the evidence base that was available at that time, the Preferred Options District Plan proposed five sites for allocation: The Goods Yard (200 homes); East of Manor Links (150 homes); Hadham Road Reserve Secondary School (0 to 250 homes); Bishop's Stortford South (750-1,000 homes); and Bishop's Stortford North (2,350 or 2,600 homes). In addition, an element of windfall development was attributed to Bishop's Stortford, along with potential sites brought forward as sites in the SLAA.
- 6.5.24 Based on the further technical work, in particular the updated SLAA, the Council found that the majority of alternative sites in and around Bishop's Stortford were relatively small, located in the green wedges, or outside the District boundary. This significantly limits the potential for identifying reasonable alternatives as, individually and collectively, these sites would not be capable of providing an alternative to the proposed development strategy proposed in the Preferred Options.
- 6.5.25 An alternative approach raised through the Preferred Options consultation was to not locate development to the south of the town on Green Belt land and instead direct this development to the rural area. The village development strategy has considered that very approach and it has been determined that there are few locations within the District's rural area that can accommodate development, and those locations that can are not capable of accommodating the same level of development. However, in response to the representations it was considered that this could be further explored through the SA process as part of a wider spatial strategy option whereby no Green Belt release occurs around the District's towns and the equivalent number of homes is directed towards the rural area beyond the Green Belt.

#### Buntingford

- 6.5.26 The Preferred Options District Plan proposed two sites for allocation in Buntingford; land to the south of the town, on land to the east of London Road (300 dwellings) and land to the north of the town, on land to the west of Ermine Street (180 dwellings). In addition, an element of windfall development was attributed to Buntingford. Following the publication of the Preferred Options, planning permission has been granted for 1,035 dwellings on sites delivering 10+ units (1,010 for general needs and 25 specialist retirement dwellings). In addition, planning applications totalling an additional 480 dwellings are awaiting determination (of which 37 are for specialist retirement dwellings). As a result, the emerging development strategy for Buntingford has been largely shaped through the planning application process, in advance of the adoption of the District Plan.
- 6.5.27 Taking account of the further evidence available, in particular the existing level of commitments, the Council determined that it would not be necessary to allocate any additional sites for development in Buntingford. Therefore, there are no other reasonable alternatives for development.

#### Hertford

- 6.5.28 The Preferred Options District Plan proposed development of at least 1,201 new homes in Hertford, plus an element of windfall. On the basis of the assessments contained within the Supporting Document, and the rest of the evidence base that was available at that time, the Preferred Options District Plan proposed four sites for allocation: Mead Lane (300 dwellings); West of Hertford to the north and south of Welwyn Road (550 dwellings); North of Hertford to the west of B158 Wadesmill Road (150 dwellings); and South of Hertford west of Mangrove Road (50 dwellings). In addition, an element of windfall development was attributed to

Hertford.

- 6.5.29 The Council considered a number of alternative sites to determine if they would be better placed to meet the level of development proposed to be delivered in Hertford in the areas to the West, North and South of the town (N.B. As the Mead Lane policy area is a brownfield site located within the urban area and already covered by an extant policy within the 2007 Adopted Local Plan, it is not intended that an alternative for this site should be explored).
- 6.5.30 Taking the further evidence into account, in particular the updated SLAA (2016), the Council considered a number of alternative sites within the settlement appraisal. The outcome of this assessment was that the approach proposed through the Preferred Option District Plan is still the preferred option for development in Hertford. Please refer to the settlement appraisal for Hertford for the details of this work.

#### Sawbridgeworth

- 6.5.31 The Preferred Options District Plan proposed two sites for allocation: land to the south of West Road (300 dwellings) and land to the north of West Road (100 dwellings). In addition, an element of windfall development was attributed to Sawbridgeworth.
- 6.5.32 Prior to the publication of the Preferred Options District Plan, Hertfordshire County Council advised that the provision of more than approximately 500 homes in Sawbridgeworth would require the provision of a bypass of the town. This advice is still extant and therefore continues to provide a clear and significant constraint to further development in the town, above and beyond the approximate figure of 500 dwellings. This is an important consideration when considering reasonable alternatives for development in Sawbridgeworth as it provides a clear constraint in terms of the overall level of growth.
- 6.5.33 The Green Belt Review found that Parcel 59, to the north of the town, was regarded as being of 'high' suitability for future development as it does not perform an important function in terms of preventing encroachment into the countryside. In light of this evidence the Council determined that three sites should be allocated in Sawbridgeworth: Land to the north of West Road (125 dwellings); Land to the south of West Road (175 dwellings) and Land to the north of Sawbridgeworth (200 dwellings).
- 6.5.34 Taking further evidence into account, in particular the updated SLAA (2016), the Council considered if there were any alternative sites that were preferable in sustainability terms to one or more of the three allocations. . . Sites to the South West of Sawbridgeworth all fall within a strategic parcel of Green Belt that prevents coalescence of Sawbridgeworth with Harlow and High Wych. Development of any of these sites would weaken the distinct and separate character of the three settlements. These sites are therefore considered to be less preferable in Green Belt terms than the three proposed allocations. In addition, SAWB2 and SAWB3 are better related to services and facilities and are therefore considered to be more sustainable.
- 6.5.35 Four sites were submitted to the west of Sawbridgeworth, north of High Wych Road. Development of the smallest of these sites would reduce the already narrow strategic gap between Sawbridgeworth and High Wych and is therefore not preferable. Development of the two very large sites was dismissed through the sieving process in the Supporting Document, largely due to the significant negative impact that it would have on the character of the town.
- 6.5.36 The final site on the western side of the town encompasses the Thomas Rivers Hospital site. The Supporting Document considered this area as part of the sieving process. It was dismissed due to its location within the strategic parcel of Green Belt that separates Sawbridgeworth from High Wych. However, the site promoters have since submitted a proposal that would only see the eastern portion of this site developed. While this development would still cause some harm to the Green Belt, it is relatively well contained and is well related to the existing urban area. It could therefore be argued that, in Green Belt terms, the difference between this proposal and the SAWB2 and SAWB3 sites is marginal. However, in terms of access to services and facilities, the two proposed allocations are clearly

preferable. Meanwhile the SAWB4 site is also clearly preferable in Green Belt terms, as confirmed by the Green Belt Review. Please refer to the settlement appraisal for Sawbridgeworth for the details of this work.

#### Ware

- 6.5.37 The Preferred Options District Plan proposed development of at least 32 new homes in Ware (which included 14 homes as part of mixed use development at the former Co-op Depot, Star Street within draft Policy WARE2), plus an element of windfall, with additional provision of between 200 and 3,000 homes to the North and East of Ware.
- 6.5.38 Taking the further evidence into account, in particular the updated SLAA (2016), the Council considered a number of alternative sites to determine if they would be better placed to meet the level of development proposed to be delivered in the area to the North and East of Ware (i.e. 1,000 to, potentially, 1,500 dwellings in the longer term). The outcome of this assessment was that this site is still the preferred option for development in Ware.
- 6.5.39 Given the evolution of available evidence, particularly that which relates to highways, it is now clear that a development of 1,000 dwellings would be the maximum achievable in the plan period; however, sufficient scope should be allowed to enable development of up to 1,500 new homes if suitable mitigation to the A414 issues can be identified. Green Belt boundaries would therefore be redrawn to reflect the overall potential development area and ensure a long-term defensible boundary. Please refer to the settlement appraisal for Hertford for the details of this work.

#### Gilston

- 6.5.40 On the basis of the assessments contained within the Supporting Document, and the rest of the evidence base that was available at that time, land to the north of Harlow, known as 'the Gilston Area' was identified as a preferred location for development. However, given the size and complexity of the site, and the need for the Council to gather further evidence regarding deliverability, the Gilston Area was not proposed for allocation at that stage. Instead, the Preferred Options District Plan identified it as a 'Broad Location for Development' for the delivery of between 5,000 and 10,000 new homes, both within this plan period and beyond, along with a range of supporting infrastructure such as new roads, primary and secondary schools, health centres and public open space.
- 6.5.41 Given the uncertainty of delivery at that time, and the need to undertake comprehensive masterplanning work, it was proposed that a separate Development Plan Document (DPD) be prepared following adoption of the District Plan in order to allocate the site. The DPD approach would set out the Council's intention to deliver development during the latter part of the Plan period, and would enable further consideration of site boundaries, Green Belt boundaries and infrastructure requirements. At that stage, the Preferred Options District Plan envisaged that the Gilston Area could provide approximately 3,000 new homes prior to the end of the Plan period, with the remainder coming forward beyond 2031 in order to help meet future housing needs.
- 6.5.42 Following the Preferred Options consultation, a number of technical studies have been prepared in order to inform ongoing work on the District Plan. Following this work, the Council now considers that there is sufficient evidence in place in order to identify the Gilston Area as an allocation within the Pre-Submission version of the District Plan, for the delivery of 10,000 homes, both within this Plan period and beyond.
- 6.5.43 The Supporting Document assessed a number of Areas of Search prior to the Preferred Options consultation. This work included an assessment of alternative options for strategic scale development or new settlements in other areas of the District. The principle of development within the Gilston Area was therefore established through that process.

East of Stevenage

- 6.5.44 The Preferred Options District Plan did not include any development on land to the east of Stevenage. The Supporting Document of the Preferred Options District Plan records the various assessment stages that were undertaken to inform the Preferred Options Draft District Plan. Following the second sieving stage, strategic development (approx. 5,000 dwellings) to the east of Stevenage was discounted for a number of reasons, including the level of infrastructure that would be required, amount of land take from the Beane Valley and that alternative locations within East Herts were available and would meet the needs determined at that time.
- 6.5.45 Comments were received to the 2014 Preferred Options Consultation that suggested that land to the east of the town could be suitable for a smaller scale of development than was previously considered. Stevenage Borough Council suggested that the evidence used looked only at broad areas and therefore may have “missed the opportunity to properly consider more discrete opportunities for smaller-scale development and incorrectly reached the conclusion that east of Stevenage is an inappropriate location for development.” Stevenage Borough Council also considered that “a relatively small-scale scheme to the east of Stevenage ~ of perhaps between 500 and 1,000 homes ~ could make a positive contribution to medium-term development requirements, introduce greater flexibility and certainty to the East Herts strategy and provide sustainability advantages over a number of the sites that have been identified.” Representations were also received from a developer promoting land to the east of Stevenage.
- 6.5.46 Further technical work was carried out by the Council and it was determined that land to the East of Stevenage is suitable in principle for development. As demonstrated through the Supporting Document, a considerable number of alternative approaches to development have been considered throughout the Plan-making process. The Council is charged with seeking to meet in full its objectively assessed housing need (16,400 homes), and in particular to ensure there is a rolling five year supply of land available to meet this need. Matters such as the requirement for major strategic infrastructure interventions are preventing other sites from coming forward early enough in the Plan period. It is the lack of delivery of such infrastructure that prevents alternative options such as new standalone settlements from being deliverable within the Plan period, even if sufficient land was available. As such, the alternative option of diverting development to areas beyond the Green Belt, i.e. in the rural area beyond the Green Belt would not represent a sustainable form of development. Please refer to the settlement appraisal for East of Stevenage for the details of this work.

East of Welwyn Garden City

- 6.5.47 The Preferred Options District Plan identified land East of Welwyn Garden City as a Broad Location for Development to accommodate around 1,700 new homes and supporting infrastructure. Given the need for prior mineral extraction, it was estimated that only 450 homes would be completed by 2031.
- 6.5.48 Following the consultation, further technical work was carried out, which has led to the reconsideration of some elements of the proposed strategy. The details of this work are presented in the settlement appraisal for East of Welwyn Garden City.
- 6.5.49 Having identified that land to the East of Welwyn Garden City was suitable in principle for development, the Council considered whether there was an alternative location in which to accommodate a similar amount of development. Gascoyne Cecil Estates submitted 127.21 hectares of land to the Call for Sites process in 2009, which comprised land to the north and south of Birchall Lane adjacent to the land presented by Tarmac as well as a large area of land around a number of villages to the south of the A414, which is collectively considered under site reference 26/004 in the SLAA. The submission is made up of a number of large greenfield sites within the Green Belt linking Hertingfordbury, Birch Green and Letty Green below the Old Coach Road.

- 6.5.50 The SLAA concluded that although the land around the villages was presented as being available, there are fundamental concerns with the approach presented – the considerable expansion of several villages. The developer suggests that the area could provide small-scale development in keeping with the character of the existing settlements. However, there are a number of features of historic and environmental importance in the locality and large parts of the area are identified as Areas of Archaeological Significance. Hertingfordbury, Birch Green and Letty Green are currently Category 3 Villages washed over by the Green Belt, where there is a presumption against development. The emerging District Plan identifies Hertingfordbury and Birch Green as Group 2 Villages, within which only infilling would be permitted. The development proposed by GCE takes the form of expansions outside the built up areas of the villages and as such would not constitute infill development, therefore the sites and therefore this option are not considered suitable.
- 6.5.51 Land to the East of Welwyn Garden City has been identified to meet the needs arising from both East Herts and Welwyn Hatfield, therefore development solely within East Herts would not accommodate Welwyn Hatfield's needs. A dispersed pattern of development would also not provide the necessary infrastructure required to support the development, nor the critical mass required to justify the creation of new infrastructure such as schools, bus public transport services and healthcare facilities. There is no capacity at the primary school in Birch Green and no means to expand the school. The development would increase demand for secondary school provision, which would have to be accommodated in the two towns, where there are already capacity issues. While there are a number of community facilities and services spread amongst the settlements, they are not considered to be sufficient to support the proposed form of development. It is also unlikely that the Hertingfordbury Parish Neighbourhood Plan would support this option.

#### Developing and refining spatial strategy options

- 6.5.52 The further technical work carried out by the Council as well as the assessment presented in the settlement appraisals and SA of site options (Appendix V) informed the development and refinement of reasonable spatial strategy options. It is important to remember that this has been carried out in the context of, and has informed, the strategic spatial options study for the HMA referred to earlier in this Chapter. The work undertaken by the Co-op. Member Board to develop and test options for distributing different levels of growth across the HMA forms a critical component of the evidence base informing the District Plan.
- 6.5.53 The findings of the emerging strategic spatial options study were discussed at a meeting between Council Officers and AECOM in August 2016. This along with the further evidence at the District level, including updated technical evidence, emerging settlement appraisals and consultation responses, informed the identification of more localised spatial strategy options ('reasonable alternatives') to be explored through the SA process for the East Herts District Plan. The options identified were as follows

**Alternative 1** - accommodate ~18,000 new homes over the plan period (OAHN = 16,400<sup>32</sup> but we know from the CLG 2014 household projections that the need is trending upwards):

- a. Preferred distribution as set out in the strategic spatial options study.
- b. Preferred distribution (1a) but with ~3,000 fewer homes within the Green Belt at key settlements including Bishop's Stortford (reduction of 750 dwellings), Hertford (reduction of 750 dwellings), Sawbridgeworth (reduction of 500 dwellings) and Ware (reduction of 1,000 dwellings). The ~3,000 will instead be dispersed across the rural area.
- c. Preferred distribution (1a) but with ~3,000 fewer homes within the Green Belt at key settlements including Bishop's Stortford (reduction of 750 dwellings), Hertford (reduction of 750 dwellings), Sawbridgeworth (reduction of 500 dwelling) and Ware (reduction of 1,000 dwellings). The ~3,000 will instead be focused at two new settlements (near Little Hadham and Watton-at-Stone).

**Alternative 2** - accommodate ~19,500 new homes over the plan period (updated OAHN = 19,500<sup>33</sup>):

- a. Preferred distribution (1a) plus other sites around settlements identified through the evidence base, including additional sites in Buntingford and north of Harlow.

6.5.54 Further detail in terms of the distribution under each of the spatial options identified above is provided in Table 6.4 Below.

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<sup>32</sup> Opinion Research Services (September 2015) West Essex and East Hertfordshire Strategic Housing Market Assessment: Report of Findings

<sup>33</sup> Opinion Research Services (August 2016). Updating the Overall Housing Need Based on 2014 projections for West Essex & East Herts

Table 6.4: The reasonable spatial strategy alternatives (NB. significantly differentiating figures from Option 1a are highlighted in red)

Spatial area		Spatial options to deliver ~18,000 new homes			Spatial options to deliver ~19,500 new homes
		Option 1a: Preferred Option identified through the Strategic Spatial Options Study	Option 1b: Removal of ~3,000 dwellings from the GB and instead direct towards rural area	Option 1c: Removal of ~3,000 dwellings from the GB and instead direct towards two new settlements	Option 2a: 1a plus other sites Buntingford & north of Harlow identified through evidence
'Givens' (up to July 2016)	Completions	2625	2625	2625	2625
	Permissions	2435	2435	2435	2435
	Windfall assumption	800	800	800	800
	<b>Sub-total</b>	<b>5860</b>	<b>5860</b>	<b>5860</b>	<b>5860</b>
Potential allocations / broad locations ('choices')	Bishop's Stortford	4142	3392	3392	4142
	Buntingford	0	0	0	400
	East of Stevenage	600	600	600	600
	East of Welwyn	1350	1350	1350	1350
	Harlow fringe (Sites A and E)	3050	3050	3050	3050
	Harlow fringe (Site B) City and Country	0	0	0	160
	Harlow fringe (Site C) Land north of Pye Corner	0	0	0	50
	Harlow fringe (Site G) Land north of the Stort/ south Gilston	0	0	0	900
	Hertford	950	200	200	950
	Sawbridgeworth	500	0	0	500
	Ware	1000	0	0	1000
	Larger villages / NP (Group 1 Villages)	500	3500	500	500
	Other (SLAA (over 10 dwellings) deliverable sites in existing urban areas)	88	88	88	88
	New settlement (option 2 - Little Hadham)	0	0	1500	0
	New settlement (option 4 – Watton-at-Stone)	0	0	1500	0
<b>Sub-total</b>	<b>12180</b>	<b>12180</b>	<b>12180</b>	<b>13690</b>	
<b>Total</b>	<b>18040</b>	<b>18040</b>	<b>18040</b>	<b>19550</b>	

**7 APPRAISING REASONABLE ALTERNATIVES**

**7.1 Introduction**

7.1.1 The aim of this chapter is to present summary appraisal findings in relation to the reasonable alternatives introduced above. Detailed appraisal findings are presented in **Appendix V**.

**7.2 Summary alternatives appraisal findings**

7.2.1 **Table 7.1** presents summary appraisal findings in relation to the four alternatives introduced above. Detailed appraisal methodology is explained in Appendix VI, but in summary:

Within each row (i.e. for each of the topics that comprise the SA framework) the columns to the right hand side seek to both categorise the performance of each option in terms of 'significant effects' (using **red** / **green**) and also rank the alternatives in relative order of performance. Also, '=' is used to denote instances where the alternatives perform on a par (i.e. it not possible to differentiate between them).

*Table 7.1: Summary spatial strategy alternatives appraisal findings*

Topic	Rank of performance / categorisation of effects			
	Option 1a Preferred distribution	Option 1b Redirect growth in GB towards rural area	Option 1c Redirect growth in GB to two new settlements	Option 2a Preferred distribution & additional sites
Air quality	★1	4	3	2
Biodiversity & GI	=			
Climate Change	★1	4	3	★1
Community and Well-being	★1	4	3	★1
Economy and Employment	★1	4	3	★1
Historic Environment	★1	4	★1	3
Housing	2	3	3	★1
Land	★1	★1	★1	4
Landscape	=			
Transport	★1	4	3	★1
Water	=			



**Summary:**

Options 1a and 2a were found to perform better against topics relating to community and wellbeing, Economy and Employment and housing as they propose a more balanced distribution of housing across the District compared to Options 1b and 1c. They are more likely to meet the needs of communities in both urban and rural areas and support opportunities for new employment in key growth areas. Option 2a has the potential for enhanced positive effect against housing compared to the other options as it proposes a higher level of overall growth and will meet the estimated OAHN for the District.

Options 1a and 2a direct a greater proportion of development towards the main settlements where there is good accessibility to services/facilities, employment opportunities and sustainable transport modes. This will help to reduce the need to travel and help mitigate the potential impacts of increased traffic on the existing road network. Option 1b was considered less likely to achieve this as a greater proportion of development would be dispersed across the rural area where there is poor access to facilities/services and employment opportunities. Development in the rural area is also likely to be small scale and therefore less likely to result in significant improvements to facilities/services and transport infrastructure. Given the scale of the proposed new settlements under Option 1c they were considered unlikely to be self-contained. Ultimately, it was concluded that the residents of new development provided through Options 1b and 1c would still need to travel to the main settlements in order to access facilities/services and employment opportunities. This would have implications for the transport, climate change and air quality topics.

All of the options have the potential for a significant residual negative effect on the land topic through the loss of agricultural land (particularly the best and most versatile) and greenfield land. At this stage it is not possible to predict which option would result in the greatest loss of best and most versatile agricultural land as the precise location of development under Options 1b and 1c is not specified.

The appraisal found no significant differences between the options in relation to biodiversity, landscape and water. While all of the options were identified as having the potential for a significant negative effect on the landscape, mitigation could help to reduce the significance of the residual effect but this would be dependent on a number of factors, including the design and layout of development as well as the precise location of development under Options 1b and 1c. While each of the options will have different effects at a local scale, it is difficult to differentiate between them at a District level.

Given uncertainties in relation to the location of growth under Option 1c, there is little to differentiate between Options 1a, 1c and 2a with respect to the historic environment. The slightly higher level of overall growth proposed under Option 2a through additional development in Buntingford and in the Gilston area, is not considered likely to result in negative effects of greater significance when compared to options 1a and 1b. If the new settlements proposed under Option 1c could be directed away from sensitive areas then this option has the potential to perform better than the others in relation to the historic environment but this is uncertain at this stage. Option 1b performs poorly compared to the other options given the greater likelihood for cumulative negative effects as a result of the dispersed distribution of development in the rural area. This appraisal also highlighted this point under the landscape topic.

## 8 DEVELOPING THE PREFERRED APPROACH

### 8.1 Introduction

8.1.1 The aim of this Chapter is to present the Council's response to the alternatives appraisal / the Council's reasons for developing the preferred approach in-light of alternatives appraisal.

### 8.2 The Council's outline reasons

8.2.1 As explained in Chapter 6, the Council has taken a 'stepped approach' to the development of a preferred spatial strategy since 2012. This process has been iterative and informed by an extensive range of technical evidence including consultation with a range of key stakeholders. The details of this work are presented in the Supporting Document and recent settlement appraisals that are outlined within this SA Report.

8.2.2 The Council's preferred approach (Option 1a) provides a balanced distribution of housing in order to meet the identified needs of both rural and urban communities compared to other alternatives. It directs development towards the areas where it is needed most and that also have good accessibility to services and facilities as well as employment opportunities, which should help to reduce the need to travel. Importantly it reflects the updated technical evidence, including the Green Belt Review and availability and deliverability of sites identified through the SLAA, as well as constraints within the Plan area. The SA found that that the preferred approach (Option 1a) performed well against the majority of SA topics when compared to alternatives.

8.2.3 Alternatives to the release of Green Belt land around the main towns for development have been considered and rejected by the Council (Options 1b and 1c). The options included redirecting this growth towards the rural area (Option 1b) or two new settlements near Watton-at-Stone and Little Hadham (Option 1c).

8.2.4 The dispersal of smaller scale housing sites across the rural area would not represent a sustainable form of development. Housing would be located in areas that have poor access to services/ facilities and employment opportunities. This would increase reliance on the private vehicle and would not provide the scale of development necessary to deliver the infrastructure improvements required to accommodate development. This alternative would also not help to meet the identified needs for communities in a number of the main towns. The findings of the SA support this conclusion.

8.2.5 Alternatives for new stand-alone settlements have been considered at various stages in plan-making by the Council. The current SLAA indicates that there is no land available within the 'areas of search' near Watton-at-Stone and Little Hadham to deliver new settlements. Along with the lack of available land, there are also serious concerns about the infrastructure required to deliver new settlements in these areas. The SA found that given the level of development proposed (1,500 dwellings for each settlement) the settlements would not be self-contained and that residents would still need to travel to the main towns in order to access the greater range of community facilities and employment opportunities on offer.

8.2.6 The higher growth option (Option 2a) includes additional land in Buntingford and north of Harlow. It has been rejected by the Council as the additional sites to the north of Harlow are subject to significant constraints, including designated heritage and areas of high flood risk. The Council also considers that the level of development for Buntingford should be equal to that already committed in the town through the approval of recent planning applications.

## **PART 2: WHAT ARE THE SA FINDINGS AT THIS STAGE?**

## 9 INTRODUCTION (TO PART 2)

9.1.1 This Section of the SA Report presents appraisal findings in relation to the Draft ('Proposed Submission') District Plan. It builds upon the SA work carried out for the Preferred Strategy that was presented in Part 3 of the Interim SA Report which was published in February 2014.

### 9.2 Methodology

9.2.1 The appraisal identifies and evaluates 'likely significant effects' of the draft plan on the baseline, drawing on the sustainability topics and objectives identified through scoping (see Chapter 5, above) as a methodological framework. To reiterate, the sustainability topics considered in turn below are as follows:

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

9.2.2 Every effort is made to predict effects accurately; however, this is inherently challenging given limited understanding of precisely how the plan will be implemented and limited by understanding of the baseline. Given uncertainties there is inevitably a need to make assumptions.

9.2.3 Assumptions are made cautiously, and explained within the text. The aim is to strike a balance between comprehensiveness and conciseness/accessibility to the non-specialist. In many instances, given reasonable assumptions, it is not possible to predict 'significant effects', but it is possible to comment on merits (or otherwise) of the draft plan in more general terms.

9.2.4 It is important to note that effects are predicted taking account of the criteria presented within Schedule 1 of the SEA Regulations.<sup>34</sup> 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. the potential for the draft plan to impact an aspect of the baseline when implemented alongside other plans, programmes and projects. These effect 'characteristics' are described within the appraisal as appropriate.

<sup>34</sup> Environmental Assessment of Plans and Programmes Regulations 2004

## 10 AIR QUALITY

### 10.1 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.

### 10.2 Appraisal of the development strategy

10.2.1 **DPS1** (Housing, Employment and Retail Growth), **DPS2** (The Development Strategy 2011-2033) and **DPS3** (Housing Supply 2011-2033) propose an approach that seeks to maximise opportunities (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 500 homes) and at the Mill Road/A414 roundabout in Hertford (allocations for 950).

10.2.2 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. This includes development proposed to the North and East of Ware (allocation for 1,000 dwellings), Gilston (allocation for 3,050 dwellings during the life of the Plan and a further 6,950 beyond 2033) and East of Welwyn Garden City (allocation for 1,350 within the Plan area).

10.2.3 **DPS4** (Infrastructure Requirements) identifies key infrastructure schemes needed over the Plan period to support the levels of growth envisaged. Six of the eleven strategic infrastructure upgrades listed relate to the road network and the majority of these will have a direct impact on traffic flow/congestion in town centres. Noise and other environmental quality benefits could also result.

10.2.4 **DPS5** (Review of the District Plan) allows for the early review of the Plan in order to seek to meet the additional housing needs arising from the 2014 household projections. This provides an early opportunity to reevaluate the impacts of proposed development and propose further mitigation if necessary.

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

- BISH7 (The Goods Yard) requires that: "*On-site car parking will need to be sufficient to meet the needs of the uses proposed, without encouraging travel to the town centre avoid worsening of town centre traffic congestion and the impact on the Hockerill Air Quality Management Area.*"
- BISH10 (The Mill Site), BISH8 (The Causeway/Old River Lane) and BISH3 (Bishop's Stortford North) also make reference to specific measures that should be put in place with a view to achieving desired transport patterns. However, BISH4 (Reserve Secondary School Site), BISH9 (East of Manor Links) and BISH5 (Bishop's Stortford South ) establish generic (i.e. non-site specific) requirements regarding 'sustainable transport' measures.
- BISH5 (Bishop's Stortford South) and BISH3 (Bishop's Stortford North) both require delivery of a new neighbourhood centre, which should help to ensure trips by car into the town centre are minimised.
- 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...”. 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.

**10.3 Appraisal of the topic policies**

10.3.1 **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”.

10.3.2 **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”.

10.3.3 **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. The supporting text of the policy states that the Council is preparing an Air Quality Planning Guidance Document which defines the Council’s expectations of developers to ensure a consistent approach and sets criteria for when an Air Pollution Assessment is required and a range of mitigation options.

**10.4 Appraisal of the draft plan ‘as a whole’**

10.4.1 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). The proposed strategic infrastructure improvements within Policy DPS4 are vital to ensuring that the residual effects of increased traffic on air quality as a result of proposed development are reduced. It is important to note that mitigating the impacts of additional traffic within the town centres will also be reliant on the achievement of modal shift through successful take up of the improved sustainable transport modes and the successful application of travel planning.

10.4.2 Taking account of the evidence available, including mitigation provided through draft plan policies and available at the project level, it is predicted that there is the potential for a **residual minor negative effect** on air quality. It will be important to continue monitoring air quality and use the early review of the District Plan (Policy DPS5) to reflect on the effectiveness of proposed mitigation and take the opportunity to consider further measures if necessary.

**11 BIODIVERSITY AND GREEN INFRASTRUCTURE**

**11.1 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.

**11.2 Appraisal of the development strategy**

11.2.1 **DPS2** (The Development Strategy 2011-2033) and **DPS3** (Housing Supply 2011-2033) reflect a desire to prioritise the development of brownfield land. However, given the lack of brownfield sites available a large proportion of development is being proposed on greenfield land on the edge of the main settlements. 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, such as international and nationally designated sites, will be directly impacted. The HRA process for the District Plan has concluded that development proposed within the Draft Plan will not have significant effects on any European sites (SAC, SPA & Ramsar) subject to a number of recommendations. The HRA Report is available separately. There are also no SSSIs within or directly adjacent to any of the proposed allocations.

11.2.2 Proposed allocations at Gilston, East of Welwyn Garden City and east of Hertford contain locally designated wildlife sites so there is the potential for direct impacts on important local biodiversity. While there is the potential to avoid development on these designated sites for the majority of these allocations, this could be more difficult for development at Gilston, particularly when you consider the level and location of proposed development after the plan period. None of the other strategic allocations contain any designated biodiversity sites.

11.2.3 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 (which will remain in the Green Belt) between the development and Hagsdell Stream to allow for the preservation of that part of the Hertford Green Finger”.

**11.3 Appraisal of the topic policies**

11.3.1 **NE3** (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 enhancement to ‘biodiversity sites’ and ‘other notable ecological features of conservation value. This wording reflects the need to value sites as components of a wider ecological network.

**Influence of earlier SA**

An early working draft version of the consultation document including a reference to ‘landscape quality’ within Policy NE3. 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.

The appraisal of the draft plan presented within the 2014 Interim SA Report then recommended that: “*NE2 [now NE3] (Species and Habitats) should 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.”* On the basis of this recommendation point VI in NE3 now addresses the issue of compensation through a clear three point list of planning obligations which the council will require of developments if there is harm / damage to species or habitats.

- 11.3.2 **NE4** (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 NE4 is made within policy HOU2 (Housing Density).
- 11.3.3 **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).
- 11.3.4 **CFLR2** (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.
- 11.3.5 **CFLR4** (Water Based Recreation) reflects the importance of ensuring developments do not harm the vulnerable and valuable riparian environment.
- 11.3.6 **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.
- 11.3.7 **DES3** (Design of Development) 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.
- 11.3.8 **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.

## 11.4 Appraisal of the draft plan ‘as a whole’

- 11.4.1 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 Panshanger 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.



**12 CLIMATE CHANGE**

**12.1 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.

**12.2 Appraisal of the development strategy (mitigation)**

12.2.1 **DPS1** (Housing, Employment and Retail Growth), **DPS2** (The Development Strategy 2011-2033) and **DPS3** (Housing Supply 2011-2033) seek to allocate land for a number of strategic developments of 500+ homes. Development at this scale should lead to good opportunities for designing-in district heating schemes. Smaller developments may also have the potential to design-in district heating; however, schemes that lead to the greatest carbon reductions<sup>35</sup> only tend to be viable in larger (500+ home) schemes.

**12.3 Appraisal of the development strategy (adaptation)**

12.3.1 **DPS2** (Development Strategy 2011-2033) and **DPS3** (Housing Supply 2011-2033) seek to avoid development in areas of flood risk; 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 proposed Gilston allocation (adjacent to the Stort Valley) is another consideration.

12.3.2 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*”.

**Influence of earlier SA**

Appraisal of an early 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.

**12.4 Appraisal of the topic policies (mitigation)**

12.4.1 **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.

12.4.2 **CC3** (Renewable and Low Carbon Energy) complements CC2 by permitting “*new development of sources of renewable energy generation*” subject to assessment of the impacts on a number of factors (also outlined by the policy), including amongst other issues; environmental and historic assets, visual amenity and landscape character, local transport networks; and air quality / human health. The emphasis of this policy is placed on protection of

<sup>35</sup> Biomass fuelled Combined Heat and Power plants (with district heating piping transferring waste heat to nearby buildings) only become viable in 500+ home developments.

the special countryside character of the rural area rather than climate change mitigation. As such, it is therefore considered that this policy could be strengthened with regard to climate change mitigation measures through encouraging community lead renewable energy projects in synergy with new development.

**Influence of earlier SA**

Appraisal of an early 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.

12.4.3 **HA1** (Designated 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.

12.4.4 **DES3** (Design of Development) requires that development: *“Encourage high quality innovative design, new technologies and construction techniques, including zero or low carbon energy and water efficient design and sustainable construction methods”.*

**12.5 Appraisal of the topic policies (adaptation)**

12.5.1 **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.

12.5.2 **WAT5** (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.”*

12.5.3 **NE4** (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.”*

## 12.6 Appraisal of the draft plan 'as a whole' (mitigation)

12.6.1 The broad spatial approach to growth reflects a desire to support larger developments, where there will be the potential to fund and design-in low carbon and renewable energy schemes. The policy approach to ensuring that development demonstrates how carbon dioxide emissions will be minimised; that carbon reduction is met on-site and that existing materials are re-used and recycled in construction is supported. 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. 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.

## 12.7 Appraisal of the draft plan 'as a whole' (adaptation)

12.7.1 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 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 in line with WAT5 (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 COMMUNITY AND WELLBEING**

**13.1 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.

**13.2 Appraisal of the development strategy**

13.2.1 **DPS1** (Housing, Employment and Retail Growth), **DPS2** (The Development Strategy 2011-2033) and **DPS3** (Housing Supply 2011-2033) seek to deliver sufficient growth in order to meet the needs of communities within the Plan area. In order to achieve this the development strategy supports large schemes, including at Bishop’s Stortford North and South, Gilston, Ware and East of Welwyn Garden City. 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. Smaller development proposed around Hertford and Sawbridgeworth will not deliver the same improvements in terms of community infrastructure but will still help to meet the housing needs of communities.

13.2.2 **DPS4** (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 DPS4 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 new schools and the expansion of existing schools, health care facilities and broadband infrastructure are listed as key infrastructure requirements.

13.2.3 **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. **BISH4** (Reserve Secondary School Site, Hadham Road) only releases the reserve secondary school site for residential development if sufficient secondary school capacity is provided within the Bishop’s Stortford North development.

13.2.4 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 early 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.

**13.3 Appraisal of the topic policies**

13.3.1 **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.

- 13.3.2 **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 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 **RTC5** (District Centres, Neighbourhood Centres, Local Parades and Individual Shops) states that: *“proposals that result in the loss of shops will be considered in accordance with Policy CFLR7 (Community Facilities).”*
- 13.3.3 **DES3** (Design of Development) 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 of supporting a distinctive sense of place. **DES4** (Crime and Security) supports **DES3** 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.
- 13.3.4 **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: **CFLR7** (Community Facilities), which focuses on provision of community facilities ‘in conjunction with new residential development’; **CFLR2** (Local Green Space); and **CFLR4** (Water Based Recreation).
- 13.3.5 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 **CFLR7** (Community facilities) 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 **CFLR2** (Local Green Space) in the Bishop’s Stortford and Hertford chapters given the importance of protecting the role of green ‘fingers’.
- 13.3.6 **NE4** (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 **WAT5** (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.

- 13.3.7 **CFLR7** (Community Facilities), **CFLR9** (Health and Wellbeing) and **CFLR10** (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: *"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 (Loss of Community Facilities) CFLR9 (Health and Wellbeing) and CFLR10 (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.
- 13.3.8 **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'.

#### 13.4 Appraisal of the draft plan 'as a whole'

- 13.4.1 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.

## 14 ECONOMY AND EMPLOYMENT

### 14.1 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).

### 14.2 Appraisal of the development strategy

14.2.1 DPS1 (Housing, Employment and Retail Growth) seeks to: "Maximise opportunities for jobs growth in the district, with the aim of achieving a minimum of 435 - 505 additional jobs in East Herts each year. This will include making provision for 10-11 hectares of employment land for B1/B2/B8 uses." It is understood that the job growth target reflects the findings of an up-to-date evidence-base study; and that the '10-11' hectares figure reflects assumptions regarding the number of new jobs that can be supported per hectare.

14.2.2 DPS2 (The Development Strategy 2011-2033) and DPS3 (Housing Supply 2011-2033) together establish an approach of allocating sites where there is a high degree of confidence that they will come forward and hence contribute to the housing supply. This 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.

14.2.3 An approach that seeks to maximise opportunities is proposed for Bishop's Stortford, where there is potential for economic growth 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.

14.2.4 WARE2 (Land North and East of Ware) allocates a mixed use development that will deliver 3ha of new employment land. 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. The strategic allocation at Gilston will provide some local employment including small office space; however, it is considered that residents will also have access more substantial employment opportunities within Harlow, including the Enterprise Zone.

### 14.3 Appraisal of the topic policies

14.3.1 **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.
- DES1 (Landscape Character) will have a similar positive effect.
- 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).

#### 14.4 Appraisal of the draft plan ‘as a whole’

- 14.4.1 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.



## 15 HISTORIC ENVIRONMENT

### 15.1 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.

### 15.2 Appraisal of the development strategy

15.2.1 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.”*

15.2.2 These aims are reflected in the decision to:

- Follow an **approach that seeks to maximise opportunities** 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 at Gilston and East of Welwyn Garden City, where there is less potential to impact directly on town centres.

15.2.3 The allocation of 1,000 dwellings to the 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.

15.2.4 At Buntingford it is noted that current applications yet to be determined and others already granted planning permission - 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.”*

15.2.5 **BISH10** (The Mill Site) requires the *“retention and renovation of the most significant historic buildings, including providing the setting of the Registry Office and adjacent listed building”*.

15.2.6 **BISH8** (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”*.

15.2.7 **WARE2** (Land North and East of Ware) requires development to *“incorporate Garden City principles and be planned comprehensively to create a new sustainable community which connects well with and complements the existing town and its existing historic centre”*.

### 15.3 Appraisal of the topic policies

- 15.3.1 **HA1** (Designated 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.
- 15.3.2 **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.”

### 15.4 Appraisal of the draft plan ‘as a whole’

- 15.4.1 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.

## 16 HOUSING

### 16.1 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.

### 16.2 Appraisal of the development strategy

16.2.1 **DPS2** (The Development Strategy 2011-2033) and **DPS3** (Housing Supply 2011-2033) together establish an approach of allocating sites where there is a high degree of confidence that they will come forward and hence contribute to the housing supply. 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.”*

### 16.3 Appraisal of the topic policies

16.3.1 **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 taking account of the latest Strategic Housing Market Assessment’.
- **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 not delivering affordable housing contrary to actions required by the policy.
- **HOU4** (Rural Exception Affordable Housing Sites) – reflects the fact that a 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** (Specialist 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.
- **HOU9** (Gypsies and Travellers and Travelling Showpeople) – explains that sufficient sites will be allocated to meet identified needs. Locational criteria and pitches for travellers 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.

**16.4 Appraisal of the draft plan 'as a whole'**

- 16.4.1 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. 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**.

## 17 LAND

### 17.1 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.

### 17.2 Appraisal of the development strategy

17.2.1 **DPS2** (The Development Strategy 2011-2033) and **DPS3** (Housing Supply 2011-2033) reflect a desire to prioritise the development of brownfield land. The outcome is that all available brownfield sites are allocated, but there is also a need to allocate **greenfield** land on the edge of existing settlements in order meet identified housing needs. This will result in the loss of significant areas of greenfield and agricultural land.

**EWEL1** (Land East of Welwyn Garden City) requires that the developer must demonstrate the extent of mineral that may be present and the likelihood of prior extraction in an environmentally acceptable way has been fully considered. The supporting text also states that the extracted material should be used for construction if possible.

**HERT3** (West of Hertford), **HERT4** (North of Hertford) and **HERT5** (South of Hertford) require that developers must demonstrate the extent of mineral that may be present and the likelihood of prior extraction in an environmentally acceptable way has been fully considered.

### 17.3 Appraisal of the topic policies

17.3.1 **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 will be favourably considered on central sites in or near town centres; whilst medium average net densities will normally be appropriate for sites that are in more peripheral locations within and on the edge of these settlements.

17.3.2 **DES3** (Design of Development) 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.”*

### 17.4 Appraisal of the draft plan ‘as a whole’

17.4.1 There is a focus on development on greenfield land given the lack of available brownfield sites. This approach is necessitated on account of the housing need that exists within the various housing market areas. 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’. While it is clear that brownfield land has been prioritised where possible and that quality of agricultural land has been taken into account through the Supporting Document, it is still suggested that **significant negative effects** are likely in terms of the overall loss of greenfield and agricultural land.

## 18 LANDSCAPE

### 18.1 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).

### 18.2 Appraisal of the development strategy

18.2.1 **DPS2** (The Development Strategy 2011-2033) and **DPS3** (Housing Supply 2011-2033) reflect a desire to prioritise the development of brownfield land. The outcome is that all available brownfield sites are allocated, but there is also a need to allocate greenfield land on the edge of existing settlements in order meet identified housing needs. 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 over 2,500 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 750 homes) is more sensitive. i.e. there is a risk of encroachment into the countryside. Evidence suggests that the proposed allocations are all well contained and any significant impact on landscape quality can be mitigated through careful design and the use of landscape buffers and planting.
- East of Welwyn Garden City (allocated for around 1,350 homes in East Herts) the condition of the landscape is considered poor with a moderate sense of character, which could be improved and restored.
- 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 (allocated for 1,000 homes over the plan period) the Green Belt Review 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 300homes) 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.

18.2.2 Significant effects are most likely to arise as a result of proposed development at Gilston as well as at East Stevenage, the latter which could have impacts on the landscape of the Beane Valley. Studies have shown however, that East of Stevenage site is well contained by structural planting which has defined the outer edge of the site and also created visual barriers within the site along particular contours, further shielding views from the current edge of Stevenage, from within the site towards the valley, and from the opposite side of the valley towards the site. While not a landscape designation, the strategy will also result in the loss of Green Belt land in the south of the District.

### 18.3 Appraisal of the topic policies

- 18.3.1 **DES1** (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'.
- 18.3.2 **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.

### 18.4 Appraisal of the draft plan 'as a whole'

- 18.4.1 While topic and site allocation policies include measures to reduce the potential impacts of development on the landscape, it is considered that there is still the potential for a residual **significant negative effect**. This is particularly as a result of development at Gilston as well as the cumulative effect of all the development proposed in the South of the District. It is recognised that the strategy focusses development in the south of the District in the most sustainable locations, which helps to protect the rural landscape character in the north. However, this does not negate the potential significant effects in the south of the District. This also results in the loss of Green Belt land to the south. In terms of the approach to site specific and area-wide 'topic' policy, the proposed approach is adequate.

## 19 TRANSPORT

### 19.1 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.

### 19.2 Appraisal of the development strategy

19.2.1 **DPS2** (The Development Strategy 2011-2033) and **DPS3** (Housing Supply 2011-2033) direct development towards areas with good access to facilities/services, employment opportunities and sustainable transport. Evidence suggests that future development within the District has the potential for significant impacts on the existing road network unless appropriate mitigation is delivered.

- Bishop's Stortford (land allocated for between 3,729 and 4,142 homes) has a railway station, and the scale of the 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. Local junction improvements will help to mitigate local impacts, while improvements to the strategic road network are also planned to Junction 8 of the M11 along with the provision of a new Junction 7a on the M11.
- At Hertford (land allocated for 950 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. Development in Hertford would increase the amount of car borne traffic using the A414, but HCC is confident that this element of growth can be supported, subject to mitigation measures. Other local junction improvements are also likely to be required, in particular in relation to the Mead Lane development.
- Sawbridgeworth (land allocated for 500 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. All three proposed allocations are close to bus routes that either provide access to the town centre or the wider area including Bishop's Stortford and Harlow. Sawbridgeworth also has a train station that provides direct services to London and Cambridge. Development in Sawbridgeworth and the wider area would increase the amount of car borne traffic using the A1184. However this would be mitigated through local junction improvements and, in particular, the provision of a new Junction 7a on the M11.
- East of Welwyn Garden City (land allocated for 1,350 homes over the plan period) is well located to provide good connections to and extend the network of off-road cycle routes that connect Welwyn Garden City to Hertford (the Cole Green Way). Cycleways and footpaths will be incorporated into the design in a way which prioritises these routes over the use of private vehicle. Existing bus routes could be extended to run through the development connecting the development to the town centre and railway station within Welwyn Garden City and beyond to nearby Hertford. Transport modelling indicates that anticipated levels of vehicle movements generated by this development would not adversely affect the wider highway network, though the B195 Birchall Lane and junctions on the A414 will need enhancements.
- Gilston (land allocated for 3,050 dwellings during the life of the Plan and a further 6,950 beyond 2033) there has been further transport modelling which has demonstrated that early delivery of both a new Junction 7a and a second River Stort crossing will provide significant benefits in terms of increasing road capacity in the wider Harlow area. The



development will incorporate new cycle and pedestrian links as well as bus routes connecting to Harlow and the wider area. Development in this location also has the potential to help facilitate the delivery of a multi-modal sustainable transport corridor stretching from the Gilston Area, through Harlow, to a possible new development to the south of the town, within Epping Forest District. In order to facilitate the proposed level of development in the Gilston Area, strategic transport schemes will be required.

- At North and East of Ware (allocated for 1,000 homes over the plan period) transport modelling indicates that anticipated levels of vehicle movements generated by development would have an impact on the already constrained town centre and the provision of a new link road will mitigate some of the effects of traffic generated by the development. Personal transport planning will be key to ensuring that residents are motivated to use sustainable transport modes and thereby lessen the impact of development, which will be limited to 1,000 dwellings in the plan period.
- East of Stevenage (land allocated for 600 homes over the plan period) is well located to provide good connections to and extend the network of off-road cycle routes that traverse the town. Cycleways and footpaths will be incorporated into the design along with safe crossing points to provide pedestrian connectivity to the existing town. Existing bus routes must be extended to run through the development. Transport modelling indicates that anticipated levels of vehicle movements generated by this development would not adversely affect the wider highway network, though the A602/Gresley Way junction will need enhancements.

19.2.2 **DPS4** (Infrastructure Requirements) identifies key infrastructure schemes needed over the Plan period to support the levels of growth envisaged. Seven 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.”*

19.2.3 A number of the site specific **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’.

### 19.3 Appraisal of the topic policies

19.3.1 **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.

19.3.2 **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.”*

19.3.3 **DES3** (Design of Development) requires that development *“Maximise legibility and accessibility of the public realm through the layout of buildings, landmarks, use of colour, landscaping, paving, high quality public art, street furniture and infrastructure including clear and legible signposting, rest places and public toilets, 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.

## 19.4 Appraisal of the draft plan 'as a whole'

- 19.4.1 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: the approach that seeks to maximise opportunities 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. Allocations East of Welwyn Garden City, in the Gilston Area and East of Stevenage 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. Overall, the proposed site allocations are unlikely to lead to significant negative effects (given site specific and area-wide 'topic' policies). Taking into account the evidence and larger strategic allocations, **negative effects** are **possible but uncertain**.

## 20 WATER

### 20.1 Sustainability issues/objectives

- Support reduced per capita consumption of water.
- Distribute development taking into account water supply and sewerage.
- Prevent contamination of the major aquifer beneath East Herts.

### 20.2 Appraisal of the development strategy

20.2.1 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. It has also been identified that the wider Rye Meads Waste Water Treatment Works has capacity to cater for planned growth in Gilston beyond the Plan period. **DPS4** (Infrastructure Requirements) identifies upgrades to waste water and water supply as one of the key infrastructure requirements that are likely to be needed to deliver the plan. The settlement appraisals do not identify any significant waste water or water supply issues for any of the allocations cannot be addressed.

### 20.3 Appraisal of the topic policies

20.3.1 **WAT3** (Water Quality and the Water Environment) should ensure that developments do not act cumulatively to impact on water quality through polluted surface water runoff. **WAT5** (Sustainable Drainage) also makes reference to the importance of SUDS contributing to water quality objectives.

20.3.2 **WAT4** (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 110 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.

20.3.3 **DES3** (Design of Development) requires that development: *“Encourage high quality innovative design, new technologies and construction techniques, including zero or low carbon energy and water efficient, design and sustainable construction methods.”*

### 20.4 Appraisal of the draft plan ‘as a whole’

20.4.1 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 would be expensive to address and hence draw on funding needed elsewhere (e.g. for community infrastructure). In terms of water efficiency and the potential for water quality impacts associated with surface water runoff, it would appear that a suitably ambitious policy approach is proposed, i.e. an approach that ensures that applicants go beyond national requirements.

## 21 SA CONCLUSIONS AT THIS CURRENT STAGE

- 21.1.1 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 'landscape' and 'land' considerations). Some concerns are also raised in terms of biodiversity, transport 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.
- 21.1.2 A number of the predicted benefits of the spatial strategy relate to the fact that relatively large schemes are supported. These provide opportunities for new employment areas and a range of community facilities to encourage self-containment. These locations may also, subject to financial viability, offer the best opportunities for decentralised heat networks, sustainable drainage, local food production, and water efficiency measures. The relatively smaller site allocations at Hertford and Sawbridgeworth, although not large enough to provide significant additional community benefits, are logical from a perspective of seeking to minimise environmental impacts and integrate with the existing built area.
- 21.1.3 Alternative approaches - including less development in the Green Belt and higher levels of growth in the rural area or new settlements elsewhere in the district - are either of questionable sustainability merit (see the appraisal of reasonable alternatives in Part 1) 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 further work on the SHMA and recognising that continued incremental extension of the market towns is not sustainable.

## **PART 3: WHAT HAPPENS NEXT?**

## 23 INTRODUCTION (TO PART 3)

23.1.1 The aim of this chapter is to explain next steps in the plan-making / SA process.

## 24 PLAN FINALISATION

24.1.1 Subsequent to publication stage, 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. At Examination a government appointed Planning Inspector will consider representations (in addition to the SA Report and other submitted evidence) before determining whether the plan is sound (or requires further modifications).

24.1.2 If found to be ‘sound’ the plan will be formally adopted by the Council. At the time of Adoption an ‘SA Statement’ will be published that sets out (amongst other things) ‘the measures decided concerning monitoring’.

## 25 MONITORING

25.1.1 At the current time there is only a need to present ‘a description of the measures envisaged concerning monitoring’.

25.1.2 The Council has prepared a Monitoring Framework against which, it is proposed, the performance of 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. **Table 26.1** lists a short selection of the Council’s proposed monitoring indicators that are of particular importance given the findings of the appraisal presented in Part 2.

**Table 25.1:** A selection of the Council’s proposed monitoring indicators

Sustainability topic	Proposed indicator of note (given appraisal findings)
Air quality	<ul style="list-style-type: none"> <li>East Herts Council’s regular air quality review and assessment work required by the Environment Act 1995.</li> </ul>
Biodiversity and green infrastructure	<ul style="list-style-type: none"> <li>Change in number and area of statutorily protected sites. This will monitor the legally protected site network of SSSIs and LNRs which are also a statutory designation.</li> <li>Change in number and area of non-statutory sites. These will be anything else that is considered to have some form of informal biodiversity or geodiversity recognition namely, Wildlife sites, important geological/geomorphological sites, Wildlife Trust or other reserves.</li> <li>Change in number and area of ancient woodlands.</li> </ul>
Climate change	<ul style="list-style-type: none"> <li>Number of new developments producing at least 10% of total predicted energy requirements in accordance with Policy CC3</li> <li>Amount of new sources of renewable energy generation permitted</li> </ul>
Community and wellbeing	<ul style="list-style-type: none"> <li>Number of planning permissions granted on land designated for open space, sport and recreation under policy CFLR1 contrary to policy</li> <li>Amount of new open space, sport and recreation facilities completed by typology and settlement</li> <li>Number of planning permissions for residential development granted that result in meeting Accessible Natural Greenspace Standards</li> <li>Number of planning permissions granted on land designated as Local Green Space under policy CFLR2 which are contrary to policy</li> <li>Number of planning permissions granted that result in the loss of uses, buildings or land for public or community contrary to Policy CFLR8</li> </ul>

Sustainability topic	Proposed indicator of note (given appraisal findings)
	<ul style="list-style-type: none"> <li>• Amount of new uses, buildings or land for public or community use completed by settlement</li> <li>• Delivery of strategic and local infrastructure to support new development</li> </ul>
Economy and employment	<ul style="list-style-type: none"> <li>• Number of additional jobs provided in the District between 2011-2033</li> <li>• Amount of additional employment land allocated for Use Classes B1/B2/B8 between 2011-2033</li> <li>• % of new employment floorspace completed by type on Previously Developed Land (PDL)</li> <li>• Net additional retail floorspace completed between 2011-2033, by settlement and primary shopping area</li> </ul>
Historic environment	<ul style="list-style-type: none"> <li>• Change in number of designated historical assets</li> <li>• Number of Conservation Area appraisals completed</li> <li>• Number of listed buildings on the national 'Buildings at Risk Register'</li> </ul>
Housing	<ul style="list-style-type: none"> <li>• Net additional dwellings completed between 2011-2033, by settlement and broad location for growth</li> <li>• Net additional dwellings in future years and phasing (trajectory)</li> <li>• Net additional dwellings completed on Allocated sites</li> <li>• Net additional dwellings completed in the monitoring year, by size, type and tenure and by settlement and broad location for growth</li> <li>• % of affordable housing permissions completed in accordance with Policy HOU3 in terms of site capacity/size thresholds</li> <li>• Amount of new specialist accommodation to meet the specific needs of older and vulnerable people, falling within Use Classes C2, C3, or sui-generis</li> <li>• Number of new Gypsy and Traveller pitches and Travelling Showpeople plots completed</li> </ul>
Land	<ul style="list-style-type: none"> <li>• % of new and converted dwellings on Previously Developed Land (PDL)</li> </ul>
Landscape	<ul style="list-style-type: none"> <li>• Number of planning permissions granted on land in the Green Belt contrary to Policy GBR1</li> <li>• Number of dwellings permitted in the Green Belt contrary to Policy GBR1</li> </ul>
Transport	<ul style="list-style-type: none"> <li>• Amount of new residential development completed within 30 minutes public transport time of 6 key services</li> <li>• Amount of completed development complying with car parking standards</li> <li>• Delivery of strategic and local infrastructure to support new development</li> </ul>
Water	<ul style="list-style-type: none"> <li>• Number of permissions granted contrary to the advice of the Environment Agency and/or Hertfordshire County Council, as Lead Local Flood Authority, on either flood defence or water quality grounds</li> <li>• % of new residential development achieving mains water consumption of 110 litres or less per head per day</li> <li>• Delivery of strategic and local infrastructure to support new development</li> </ul>

## APPENDIX I: REGULATORY REQUIREMENTS

The information that must be contained in Schedule 2 of the Environmental Assessment of Plans Regulations 2004; however, interpretation of Schedule 2 is not straightforward. The table below ‘interprets’ Schedule 2 requirements.

<u>Schedule 2</u>	<u>Interpretation of Schedule 2</u>	
<i>The report must include...</i>	<i>The report must include...</i>	
(a) an outline of the contents, main objectives of the plan and relationship with other relevant plans and programmes;	An outline of the contents, main objectives of the plan and relationship with other relevant plans and programmes	i.e. answer - <i>What's the Plan seeking to achieve?</i>
(b) the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan	Any existing environmental problems which are relevant to the plan including, in particular, those relating to any areas of a particular environmental importance	i.e. answer - <i>What's the 'context'?</i>
(c) the environmental characteristics of areas likely to be significantly affected;		
(d) any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC;	The relevant environmental protection objectives, established at international or national level	i.e. answer - <i>What's the 'baseline'?</i>
(e) the environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan and the way those objectives and any environmental considerations have been taken into account during its preparation;	The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan'	
(f) the likely significant effects on the environment including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors;	The environmental characteristics of areas likely to be significantly affected	
(g) the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan;	Any existing environmental problems which are relevant to the plan including, in particular, those relating to any areas of a particular environmental importance	i.e. answer - <i>What are the key issues &amp; objectives?</i>
(h) an outline of the reasons for selecting the alternatives dealt with and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information	Key environmental problems / issues and objectives that should be a focus of appraisal	
(i) a description of the measures envisaged concerning monitoring.	An outline of the reasons for selecting the alternatives dealt with (i.e. an explanation of the 'reasonableness of the approach')	i.e. answer - <i>What has Plan-making / SA involved up to this point?</i> <b>[Part 1 of the SA Report]</b>
	The likely significant effects associated with alternatives, including on issues such as... ... and an outline of the reasons for selecting the preferred approach in light of the alternatives considered / a description of how environmental objectives and considerations are reflected in the draft plan.	
	The likely significant effects associated with the draft plan	i.e. answer - <i>What are the appraisal findings at this current stage?</i> <b>[Part 2 of the SA Report]</b>
	The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects of implementing the draft plan	
	A description of the measures envisaged concerning monitoring	i.e. answer - <i>What happens next?</i> <b>[Part 3 of the SA Report]</b>



## APPENDIX II: CONTEXT AND BASELINE

As discussed in Chapter 5, SA scoping work involved reviewing the sustainability context and baseline, before then identifying key issues/objectives (i.e. establishing ‘the SA framework’). A detailed review of the policy context and baseline information was carried out during the scoping stage. This information was presented in a Draft SA Scoping Report for consultation, which was then finalised and published in March 2010. As part of the iterative and ongoing SA process the context and baseline information were updated and presented in the Interim SA Report published alongside the Preferred Options Document for consultation in January 2014. The aim of this appendix is to present updated summary information on sustainability context and baseline.

### What’s the ‘context’?

The SA Report must include...

- The relevant sustainability objectives, established at international / national level; and
- Any existing sustainability problems / issues which are relevant to the plan including, in particular, those relating to any areas / populations etc. of particular importance.

### Introduction

An important step when seeking to establish the appropriate scope of an SA involves reviewing sustainability context messages (i.e. ‘issues’ or ‘objectives’) set out within relevant published plans, policies, strategies and initiatives (PPSIs).

### Air quality

The EU Thematic Strategy on Air Pollution<sup>36</sup> 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.

The National Planning Policy Framework (NPPF)<sup>37</sup> 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”*.

The Air Quality Strategy for England, Scotland, Wales and Northern Ireland<sup>38</sup> 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.

### Biodiversity and green infrastructure

The EU Biodiversity Strategy<sup>39</sup> (2011) established a Europe-wide target to “halt the loss of biodiversity and the degradation of ecosystem services in the EU by 2020”.

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.

<sup>36</sup> 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)

<sup>37</sup> DCLG (2012) National Planning Policy Framework [online] available at: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/6077/2116950.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf)

<sup>38</sup> Defra (2011) 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)

<sup>39</sup> 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](http://ec.europa.eu/environment/nature/biodiversity/comm2006/pdf/2020/1_EN_ACT_part1_v7%5b1%5d.pdf) (accessed 07/2013)

- 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.<sup>40</sup>
- 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'.

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.<sup>41</sup>
- 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.<sup>42</sup>

## Climate change

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
- 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 2008.<sup>43</sup> 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.

In the guidance document "How local authorities can reduce emissions and manage climate risk"<sup>44</sup> 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.

With regards to low-carbon district heating networks, the DECC report "The future of heating"<sup>45</sup> points out that around half (46%) of the final energy consumed in the UK is used to provide heat, contributing roughly a

<sup>40</sup> 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'.

<sup>41</sup> The Wildlife Trusts (2010) A Living Landscape: play your part in nature's recovery [online] available at: <http://www.wildlifetrusts.org/aliveinglandscape> (accessed 07/2013)

<sup>42</sup> TCPA (2012) Creating garden cities and suburbs today [online] available at: [http://www.tcpa.org.uk/data/files/Creating\\_Garden\\_Cities\\_and\\_Suburbs\\_Today.pdf](http://www.tcpa.org.uk/data/files/Creating_Garden_Cities_and_Suburbs_Today.pdf) (accessed 07/2013)

<sup>43</sup> 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.

<sup>44</sup> 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](http://hmccc.s3.amazonaws.com/Local%20Authorites/1584_CCC_LA%20Report_bookmarked_1b.pdf) (accessed 11/2012)

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....*"

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.

The National Adaptation Programme (NAP)<sup>46</sup> 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.* Box 5.1 looks at the policy context in relation to flood risk.

#### Box 5.1: 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 Act<sup>47</sup> 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.

#### Community and wellbeing

A 'core planning principle' of the National Planning Policy Framework (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'.

There is "overwhelming evidence that health and environmental inequalities are inexorably linked and that poor environments contribute significantly to poor health and health inequalities."<sup>48</sup> To ensure that the built environment promotes health and reduces health inequalities 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

<sup>45</sup> 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)

<sup>46</sup> Defra, 2013. National Adaptation Programme [online] available at [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/209866/pb13942-nap-20130701.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/209866/pb13942-nap-20130701.pdf)

<sup>47</sup> Flood and Water Management Act (2010) [online] at: <http://www.legislation.gov.uk/ukpga/2010/29/contents> (accessed 08/12)

<sup>48</sup> 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)

- support locally developed and evidence-based community regeneration programmes that remove barriers to community participation and action; and reduce social isolation.

According to the NPPF, new development should create **safe and accessible environments** where fear of crime does not undermine quality of life or community cohesion. Places should contain clear and legible pedestrian routes, and high quality public spaces, which encourage active and continual use. 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.

Organisations involved in 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.<sup>49</sup>

**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.<sup>50</sup>

### Economy and employment

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.<sup>51</sup>

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.<sup>52</sup>

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.<sup>53</sup> Also, lower order retail and service

<sup>49</sup> 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)

<sup>50</sup> DCLG (2012) Planning policy for traveller sites [online] available at: <http://www.communities.gov.uk/documents/planningandbuilding/pdf/2113371.pdf> (accessed 08/2012)

<sup>51</sup> 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](http://www.fsb.org.uk/policy/assets/rural_report_web_final_proof.pdf) (accessed 08/2012)

<sup>52</sup> 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>

<sup>53</sup> 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)

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.<sup>54</sup>

### Historic environment

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.

### Housing

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'.

The Joseph Rowntree Foundation International Review of Land Supply and Planning Systems<sup>55</sup> 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.

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.<sup>56</sup>

### Land

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'.

<sup>54</sup> 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)

<sup>55</sup> 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)

<sup>56</sup> 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]

- The value of best and most versatile agricultural land should also be taken into account.

In *Safeguarding our Soils: A strategy for England*<sup>57</sup>, 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.

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.

### Landscape

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.

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.<sup>58</sup>

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.

### Transport

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'.

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.<sup>59</sup>
- Higher levels of walking and cycling could reduce congestion, improve local environmental quality, improve personal health and reduce transport-related CO<sub>2</sub> emissions<sup>60</sup>. Plans should ensure that strategic policies support and encourage both walking and cycling.<sup>61</sup>

<sup>57</sup> 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)

<sup>58</sup> Council of Europe (2000) *The European Landscape Convention* [online] available at:

<http://conventions.coe.int/Treaty/en/Treaties/Html/176.htm> (accessed 08/2012)

<sup>59</sup> Hampshire County Council (2012) *Local Transport Plan* [online] available at: <http://www3.hants.gov.uk/transport/local-transport-plan.htm> [accessed 18/03/2013]

<sup>60</sup> 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/UWCRReportSept2011.pdf](http://www.its.leeds.ac.uk/fileadmin/user_upload/UWCRReportSept2011.pdf) (accessed 08/2012)

<sup>61</sup> 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>

The Hertfordshire Local Transport Plan 3 (LTP3) was published in 2011 and sets out a 20 year strategy for development of transport in the county. Since 2014, work has been underway on delivering a new spatial transport vision for Hertfordshire to 2050. A Vision Stage 1 Report was published in 2014 and outlines future long term visions for Hertfordshire, identifies a number of key 'drivers of change', and outlines the county's challenges and issues (transport and non-transport). The Vision Stage 2 Report was published in 2015 and aimed to further the understanding on transport's contribution to local economic growth. It also outlined a number of major transport interventions based around different transport approaches to accommodate growth to 2031 (the period covered by most local plans), and different spatial scenarios beyond 2031. The Vision and Strategy will be detailed in the new Local Transport Plan (LTP4) building on the work undertaken to date and feedback from stakeholders.

## Water

The EU's 'Blueprint to Safeguard Europe's Water Resources'<sup>62</sup> 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.

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 side.<sup>63</sup>

## What's the sustainability 'baseline'?

The SA Report must include...

- The relevant aspects of the current state of the sustainability baseline and the likely evolution thereof without implementation of the plan;
- The characteristics of areas / populations etc. likely to be significantly affected; and
- Any existing sustainability problems / issues which are relevant to the plan including, in particular, those relating to any areas / populations etc. of particular importance.

## Introduction

The baseline review is about expanding on the consideration of problems/issues identified through context review so that they are locally specific. Once the baseline is established then it becomes possible to predict / evaluate effects (on the baseline). A detailed review of the baseline information was carried out during the scoping stage. This information was presented in a Draft SA Scoping Report for consultation, which was then finalised and published in March 2010. Subsequently, a considerable amount of baseline review was undertaken by the Council as part of the District Plan **Supporting Document**, which is available on the Council's website.<sup>64</sup> Summary messages from the review were summarised and updated within the Interim SA Report that was published in January 2014. As part of the iterative SA process, the summary messages set out in the Interim SA Report have been updated where necessary and are set out below under SA topic headings.

## Air quality

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

<sup>62</sup> 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](http://ec.europa.eu/environment/water/blueprint/pdf/COM-2012-673final_EN_ACT-cov.pdf) (accessed 11/2012)

<sup>63</sup> 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)

<sup>64</sup> <http://www.eastherts.gov.uk/index.jsp?articleid=28043>

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)..”

A further AQMA has been declared on London Road, Cambridge Road and the adjoining roads in Sawbridgeworth in 2015.<sup>65</sup>

**Biodiversity and green infrastructure**

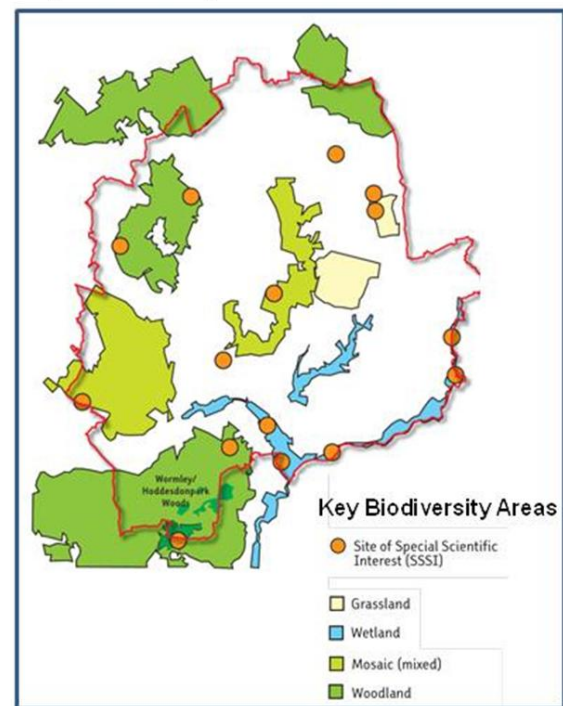
Section 2.8 of the Council’s Supporting Document considers the ‘natural and historic environment’ issues of landscape and the countryside, tranquillity, wildlife / biodiversity / green infrastructure and historic assets. In relation to biodiversity and green infrastructure, it is stated (amongst other 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)<sup>66</sup> 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.”

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.

*Key biodiversity areas*



A page on the Council’s website<sup>67</sup> 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

<sup>65</sup> [online] available at: <http://www.eastherts.gov.uk/article/9550/Air-Quality>

<sup>66</sup> 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](http://www.hef.org.uk/nature/biodiversity_vision/index.htm)

<sup>67</sup> See <http://www.eastherts.gov.uk/index.jsp?articleid=24807>



- 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.

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.”

**Climate change**

It is important to consider the baseline in relation to per capita carbon emissions from road transport and ‘domestic’ sources. In 2012, the average East Herts resident was the cause of 1.9 tonnes CO<sub>2</sub> from transport sources and 2.4 tonnes CO<sub>2</sub> from domestic sources. Over all there is a general down-ward trend over time in transportation emissions. However, although emissions from domestic sources in East Herts also show a general decline, they have shown an increase between 2011 and 2012 – see Tables below.

*Transport CO<sub>2</sub> per capita<sup>68</sup>*

	2008	2009	2010	2011	2012
East Herts	2.	2.1	2.0	2.0	1.9
East England of	2.5	2.4	2.3	2.3	2.3
England	2.1	2.0	2.0	1.9	1.9

*Domestic CO<sub>2</sub> per capita<sup>69</sup>*

	2008	2009	2010	2011	2012
East Herts	2.6	2.3	2.5	2.2	2.4
East England of	2.4	2.2	2.3	2.0	2.0
England	2.4	2.1	2.3	2.0	2.2

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.

In relation to low carbon energy it makes reference to the Hertfordshire Renewable and Low Carbon Strategy (2010)<sup>70</sup>. One of the study outputs is the identification of high ‘heat demand’ areas where there may be good potential to incorporate district heating<sup>71</sup> schemes as part of new development. Notable opportunity areas

<sup>68</sup> <https://www.gov.uk/government/statistics/local-authority-emissions-estimates>

<sup>69</sup> Ibid 34

<sup>70</sup> See [www.eastherts.gov.uk/technicalstudies](http://www.eastherts.gov.uk/technicalstudies)

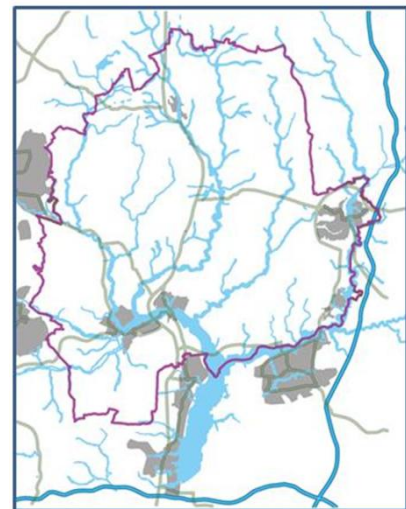
<sup>71</sup> The study defines district heating as “an alternative method of supplying heat to buildings, using a network of super insulated pipes to deliver heat to multiple buildings from a central heat source, such as a Combined Heat and Power (CHP) plant. A CHP plant is essentially a local, smaller 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 CO<sub>2</sub> reductions.”

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.

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.

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),<sup>72</sup> which considers: fluvial (river) flooding; 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:

*Fluvial 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.

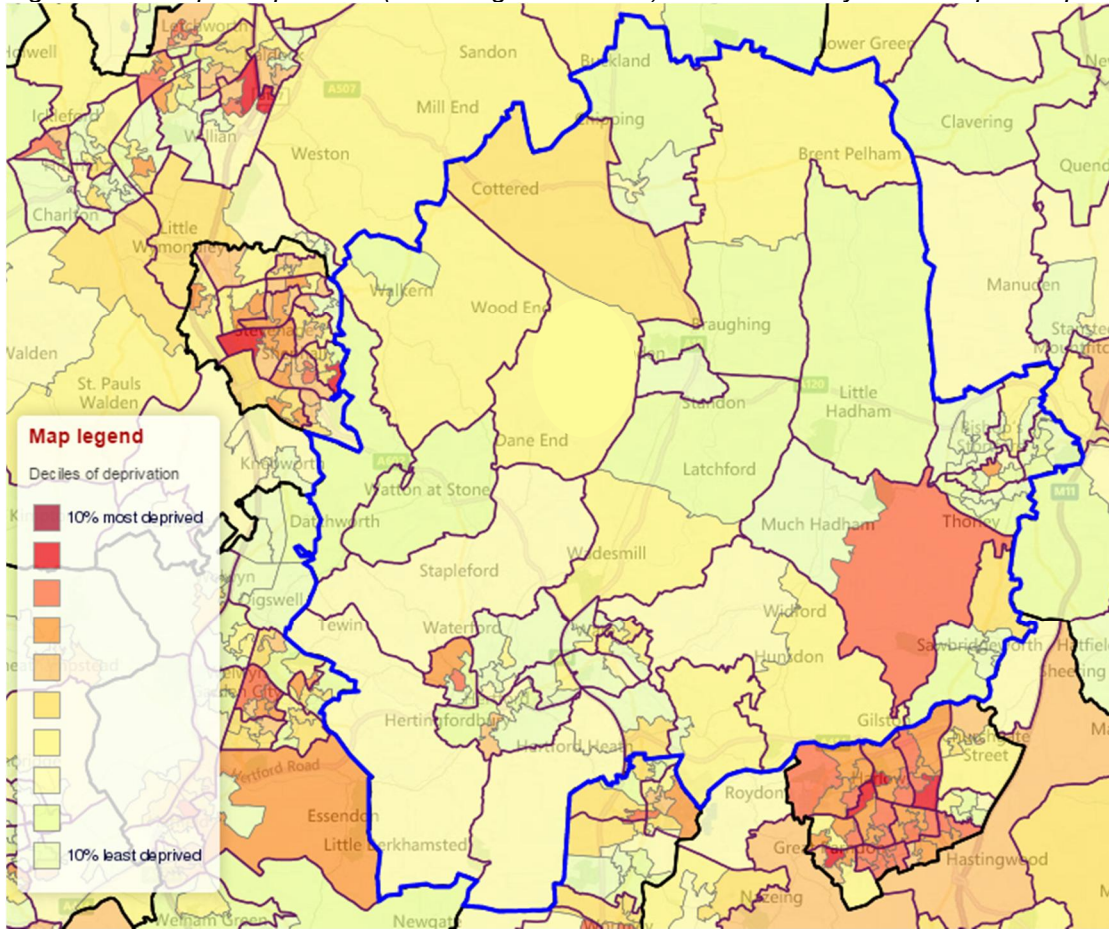
**Community and wellbeing**

The district can on the whole be considered to be non-deprived. The least deprived Lower Super Output Area (LSOA) is the 32,754<sup>th</sup> least deprived Super Output Area (LSOA) nationally out of a total of 32,844, where 1 is the most deprived LSOA.

Four SOAs – those coloured dark orange in Figure 5.3 – stand out as being relatively deprived. The most deprived SOA (highlighted in Figure 5.3) is found south of Bishop’s Stortford, which is ranked 9,715 out of 32,844 LSOAs in England. This is amongst the 30% most deprived neighbourhoods in the country; the second and third most deprived LSOA’s are found west of Hertford, which are ranked 9,743 and 11,533 out of LSOAs in England. A fourth LSOA at Bishop’s Stortford is ranked 10,743 out of LSOAs in England.

<sup>72</sup> See [www.eastherts.gov.uk/sfra](http://www.eastherts.gov.uk/sfra)

Figure 5.3: Multiple Deprivation (according to IMD2015) in East Herts by Lower Super Output Area<sup>73</sup>.



Supporting the provision for **education** is a key issue for the District 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.”

**Economy and employment**

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.

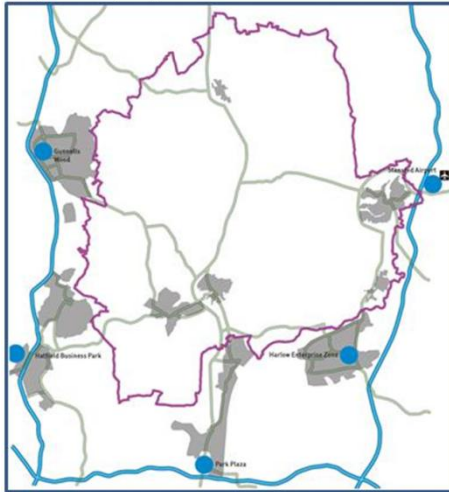
<sup>73</sup> <http://dclgapps.communities.gov.uk/imd/idmap.html>

- 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.<sup>74</sup>
- 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 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.

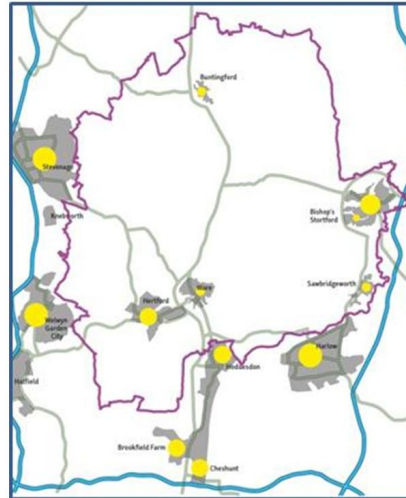
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<sup>74</sup> Hertfordshire Strategic Employment Sites Study, 2011

Major employment



Major retail



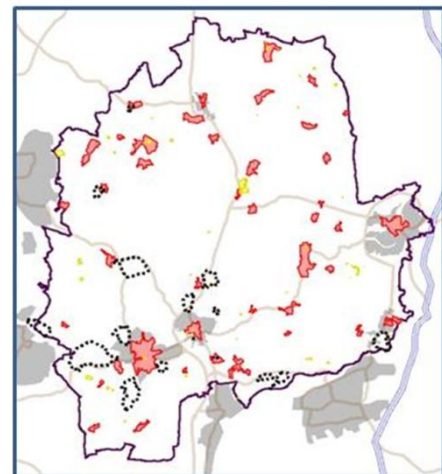
**Historic environment**

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.”

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.

Heritage assets



**Housing**

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

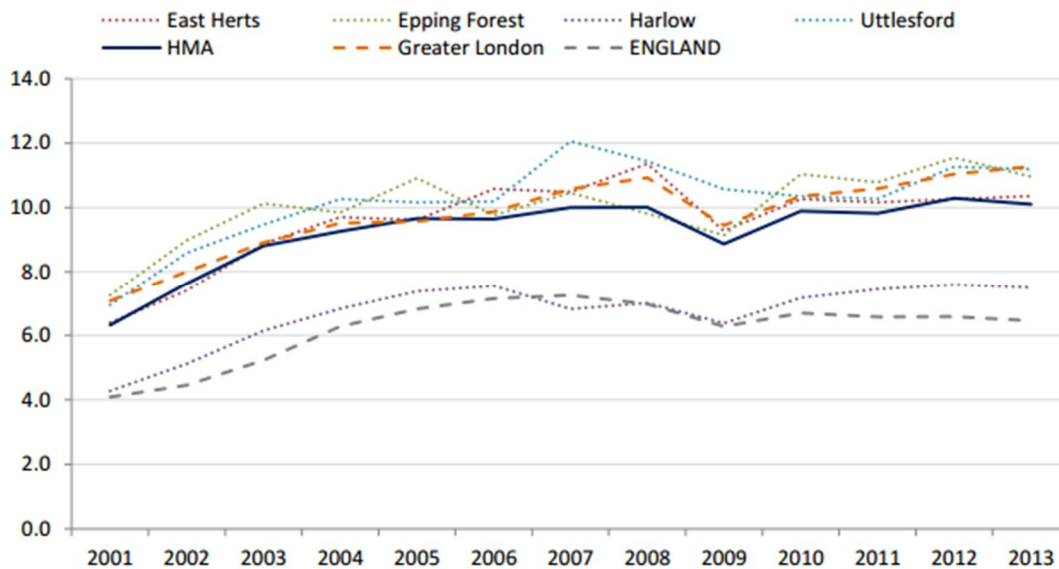
- demographics and the housing need;
- affordability and the housing market; and
- ageing population and specialist needs.

**Housing need** is a key issue for the plan. 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.

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** within the housing market is a major issue. House prices in the HMA increased substantially in the period 2001-2004 (from £121,400 to £202,500 at 2011 values, a real increase of 67%) and peaked in 2007 at £224,500; but they have progressively reduced since that time with real prices at around £195,100 in mid-2013.<sup>75</sup> Affordability of housing (i.e. the relationship of income to house prices) is a key issue.

The figure below shows the ratio of lower quartile house price to lower quartile earnings in the HMA between 2001 and 2013. This long term trend for the HMA shows that the lower quartile affordability multiplier increased from 6.3 in 2001 to 8.8 in 2003 (due to the increase in real house prices) however it has remained relatively stable at around 10.0 over the period since 2005. Whilst this ratio is notably higher than the ratio for England, it is lower than the multiplier for Greater London which has increased from 9.4 in 2009 to 11.3 in 2013.



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. Overall, the trends show that the number of households registering for affordable housing has increased by around 60% over the last decade. Nevertheless, the criteria for joining the housing registers in all areas have recently changed as a result of policy changes following the Localism Act. Only people with a local connection now qualify for the housing register, and people with adequate financial resources (including owner occupiers) are no longer included – so the trends discussed above have to be understood in this context and number on the registers are falling.

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.

<sup>75</sup> Information from Strategic Housing Market Assessment (SHMA) (2015) <http://www.eastherts.gov.uk/index.jsp?articleid=15675>

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.

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.

### Land

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."

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).

### Landscape

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.

... 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."

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 Stansted 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.

### Transport

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.

## Water

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.<sup>76</sup>
- The current Water Resources Management Plan for the area (Affinity Water, June 2014) suggests that there is likely to be sufficient water to meet demand through to 2035 without developing new water resources. In reaching this conclusion Affinity 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 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.

<sup>76</sup> 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)



- 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 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.

## APPENDIX III: DEVELOPMENT OPTIONS APPRAISAL

### Introduction

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.

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.

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).

### Air quality

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*"

## Biodiversity and green infrastructure

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.

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

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.*”

## Climate change

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.

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.”

## Community and wellbeing

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.”*

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.

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.”*

## Economy and employment

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.

## Historic environment

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..."

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).

## Housing

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.

## Land

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 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)

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.

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).

- Para 4.13.2.2.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.”
- Para 4.8.6.7 states that, at South-West Ware: “...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.”

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).

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)

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)

## Landscape

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.”

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.”

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.”

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.”

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...” The Council suggest that 125 dwellings could be appropriate.

## Transport

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... 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.... 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 [is] not be an option for development within this Plan period.”

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*”.

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 there to be capacity for 150 dwellings.

## Water

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.



## APPENDIX IV: 2014 SPATIAL STRATEGY ALTERNATIVES APPRAISAL

### Introduction

As discussed in Chapter 7, spatial strategy alternatives were developed / appraised in late 2013, and then published for consultation within the 2014 Interim SA Report as part of the 'Preferred Options' consultation.

The alternatives comprised the preferred approach, as it stood at the time, plus seven alternative approaches. So, there were eight alternatives in total.

The alternatives are introduced below, and then summary alternatives appraisal findings are presented. Readers interested in detailed appraisal findings should see the 2014 Interim SA Report.

### The 2014 spatial strategy alternatives

The preferred approach, as it stood in 2014, is broken down in detail in the first table below. The second table then presents the alternatives. The preferred spatial strategy as it stood in 2014

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
<b>Site allocations total</b>	<b>5,580</b>
Gilston Area (north of Harlow)	3,000
East of Welwyn Garden City	450
North and East of Ware	1,800
<b>Broad locations total</b>	<b>5,250</b>
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
<b>Other supply sources total</b>	<b>5,102</b>
<b>GRAND TOTAL</b>	<b>15,932</b>

Alternative spatial strategies for appraisal as established in 2014

Option	Total homes <sup>77</sup>	Allocations	Broad locations	Notes
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	The preferred approach
2	15,382	5,580 homes	1,700 homes East of Welwyn Garden City 3,000 North and East of Ware	Maximising <sup>78</sup> growth at two of the Broad Locations
3	15,382	5,580 homes	1,700 homes East of Welwyn Garden City 3,000 homes West of Sawbridgeworth (with a bypass)	Maximising growth at two of the Broad Locations
4	15,682	5,580 homes	5,000 homes East of Stevenage	A major 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.
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	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.
7	15,102	0 homes	10,000 homes in the Gilston Area	A higher level of development in the Gilston Area and no urban extensions to the market towns; despite the fact that such extensions are, in fact, necessary in order to ensure housing supply in the short-term. This option is indicative. It is recognised that there are potentially numerous ways of achieving a 15,000 home target.
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	Higher levels of growth which might result if the Council has to accept the unmet need of other districts. This option is also indicative.

<sup>77</sup> All options assume 5,102 dwellings from 'other' supply sources.

<sup>78</sup> i.e. this is the scale of growth that is possibly deliverable. Certainty around delivery on this scale before 2031 is, however, relatively low.

## 2014 summary alternatives appraisal findings

Summary appraisal findings are presented across two tables. The second table (which considers each option in turn) is something of a refinement of the first table (which considers each SA topic in turn).

Readers interested in detailed alternatives appraisal findings from 2014 should see the Interim SA Report.

*Summary alternatives appraisal findings from 2014 – by Topic<sup>79</sup>*

SA Topic	Alternatives appraisal findings from 2014
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>
Biodiversity & 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 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>

<sup>79</sup> 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. If it is a case that infrastructure delivery lags behind housing development, or does not materialise at all, then 'self-containment' will not be achieved.

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).

SA Topic	Alternatives appraisal findings from 2014
Community & 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 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>
Economy & employment	<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 would not capitalise on opportunities for employment growth at Bishop's Stortford.</p>
Historic Environment	<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 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.</p>
Housing	<p>Options which achieve a spread of housing across the housing market areas to meet need within each area perform better.</p> <p>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.</p>
Land	<p>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 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>

SA Topic	Alternatives appraisal findings from 2014
Landscape	<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>
Transport	<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 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 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>
Water	<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>

*Summary alternatives appraisal findings from 2014 – by Option<sup>80</sup>*

SA Topic	Alternatives appraisal findings from 2014
1: Preferred Option	<p>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.</p>
2: Focus on Welwyn Garden City and Ware	<p>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.</p>
3: Focus on Welwyn Garden City and Sawbridgeworth	<p>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 relatively unattractive location for new employment; and landscape impacts would be similar to those for the Gilston Area.</p>
4: Focus on Stevenage	<p>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.</p>

<sup>80</sup> 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. If it is a case that infrastructure delivery lags behind housing development, or does not materialise at all, then 'self-containment' will not be achieved.

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).

SA Topic	Alternatives appraisal findings from 2014
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.
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 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.
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).

## APPENDIX V: SITE OPTIONS APPRAISAL

### Introduction

As explained within Chapter 6 above, site options - i.e. the pool of housing sites that have been identified as available, deliverable and potentially suitable for allocation in the SLAA (2016) - have been appraised for completeness.

The aim of this appendix is to:

- 1) explain how the list of site options was arrived at;
- 2) explain the site options appraisal methodology; and then
- 3) present the outcomes of site options appraisal. N.B. Employment site options have not been appraised.

### Developing the appraisal methodology

Given the number of site options and limited site-specific data availability it was not possible to simply discuss ('qualitative analysis') the merits of each site option under the SA framework (i.e. take an approach to analysis as per that taken to the appraisal of spatial strategy options - see Appendix VI).<sup>81</sup>

As such, work was undertaken to develop a methodology suited to site options appraisal, whilst also reflecting the SA framework as best as possible. The methodology essentially involves employing GIS data-sets, and measuring ('quantitative analysis') how each site option relates to various constraint and opportunity features.

The site options appraisal methodology is presented in **Table A** below. The table aims to demonstrate that the criteria reflect the SA framework as closely as possible, recognising data limitations (and given that there is a need to appraise site options 'on a level playing field').

N.B. Whilst that methodology has not been the subject of consultation to date, stakeholders are welcome to comment at the current time. Any suggestions will be taken into account when undertaking **further SA work** subsequent to the current consultation.

Table A: Scope of the site options appraisal methodology

Topic	Relevant criteria (Location in relation to...)	Notes
Air Quality	<ul style="list-style-type: none"> <li>• Air Quality Management Area (AQMAs)</li> </ul>	<p><b>Good data</b> exists to inform the appraisal, as AQMAs are designated where air quality is problematic. However, there is only the potential to measure proximity to an AQMA (i.e. there is not potential to model traffic flows between sites and AQMAs).</p>
Biodiversity & GI	<ul style="list-style-type: none"> <li>• European sites (SAC, SPA &amp; Ramsar)</li> <li>• Site of Scientific Interest (SSSI)</li> <li>• Local Wildlife Sites</li> <li>• Ancient Semi Natural Woodland</li> <li>• Local Nature Reserves</li> <li>• Other woodland</li> </ul>	<p><b>Good data</b> is available to inform the appraisal. It is assumed that international and nationally designated sites are likely to be more sensitive than locally designated sites.</p> <p>However, it has not been possible to draw on any locally commissioned work to identify further areas of constraint/opportunity (e.g. particularly sensitive locally designated wildlife sites or other areas contributing to 'green infrastructure').</p>

<sup>81</sup> Qualitative analysis of site options would only have been possible were time / resources available to generate data/understanding for all site options through site visits and discussion with promoters. Without this data/understanding, any attempt at qualitative analysis would have led to a risk of bias (e.g. sites that are being proactively promoted may have been found to perform favourably).

Topic	Relevant criteria (Location in relation to...)	Notes
Climate Change	<ul style="list-style-type: none"> <li>• Flood risk zone</li> </ul>	<p><b>Poor data</b> exists to inform the appraisal in terms the impact of development at individual sites on carbon emissions. Whilst some site options may well have greater potential to incorporate on-site low carbon and renewable energy technologies (including on account of the scale and density of development or the terrain and aspect of the site), or link to a decentralised source of low carbon / renewable energy, there is insufficient evidence to enable robust analysis.</p> <p>There is <b>good data</b> available to inform the appraisal in terms of flood risk. N.B. It is important to avoid development in flood zones; however, there is the potential to address flood risk at the development management stage, when a 'sequential approach' can be taken to ensure that uses are compatible with flood risk. There is also the potential to design-in Sustainable Drainage Systems (SuDS).</p>
Community and Well-being	<ul style="list-style-type: none"> <li>• GP surgery / Medical Centre</li> <li>• Secondary &amp; Primary Schools</li> <li>• Town Centres</li> <li>• Area of overall deprivation</li> </ul>	<p><b>Limited</b> data is availability of data to inform the appraisal.</p> <p>Proximity to community infrastructure is important, particularly for residents who are less mobile (e.g. the elderly). However, there are few available borough-wide datasets. Also, data is not available to show the location of facilities outside the District, which could prejudice against sites near to the District boundary. Also, a limitation relates to there being no ability to take into account the potential for development at a particular site to put additional pressures on community infrastructure locally, or for the analysis to evaluate the potential for development to fund new community infrastructure. Town Centres generally contain a higher proportion of facilities/ services in a settlement. It is therefore fair to assume that site options in closer proximity to the Town Centres will have better accessibility to community services/ facilities.</p> <p>Development in an area of relative deprivation is assumed to be a positive step given that it can lead to developer funding being made available for targeted local schemes/initiatives. It is however difficult to draw strong conclusions as viability considerations will come into play and/or because the full impacts can only be examined in the context of a detailed scheme.</p>
Transport	<ul style="list-style-type: none"> <li>• Bus stops</li> <li>• Train stations</li> </ul>	<p><b>Good data</b> is available to inform the appraisal. Walking distance to sustainable transport modes can help to determine if development at a site is likely to help reduce the need to travel by the private vehicle, which can help to reduce the traffic impacts of development.</p>



Topic	Relevant criteria (Location in relation to...)	Notes
Economy and Employment	<ul style="list-style-type: none"> <li>· Employment areas</li> </ul>	<p><b>Poor data</b> exists to inform the appraisal.</p> <p>It is possible to identify instances where development would lead to the loss of an employment site (i.e. the employment use would be lost to another use); however, it is difficult to draw strong conclusions as underlying factors may be in play (e.g. because employment site may be vacant or underperforming).</p> <p>It is also possible to consider the implications of development (whether housing or employment) in proximity to existing employment locations. However, again it is difficult to draw strong conclusions.</p>
Historic Environment	<ul style="list-style-type: none"> <li>· Conservation Areas</li> <li>· Registered Park or Garden</li> <li>· Scheduled Monument</li> <li>· Listed Building</li> </ul>	<p><b>Limited data</b> is available to inform the appraisal. Whilst there is good potential to highlight where development in proximity to a heritage asset might impact negatively on that asset, or its setting, a limitation relates to the fact that it has not been possible to gather views from heritage specialists on sensitivity of assets / capacity to develop sites. This is a notable limitation as potential for development to conflict with the setting of historic assets / local historic character can only really be considered on a case-by-case basis rather than through a distance based criteria. It will also sometimes be the case that development can enhance heritage assets.</p>
Housing		<p><b>No data</b> exists to inform the appraisal. It would not be appropriate to suggest that a large site performs better than a small site simply because there is the potential to deliver more homes. Housing objectives could be met through the delivery of numerous small sites, or through delivery of a smaller number of large sites (albeit it is recognised that financial viability, and hence the potential to deliver affordable housing alongside market housing, is higher at large sites).</p>
Land	<ul style="list-style-type: none"> <li>· Agricultural land classification<sup>82</sup></li> <li>· Agricultural land under Environmental Stewardship<sup>83</sup></li> </ul>	<p><b>Good data</b> is available to inform the appraisal. A key consideration is the need to maintain the resource of higher quality agricultural land. The other criterion is cross cutting, rather than relating solely to 'soil'.</p> <p>Another locational issue is the presence of contaminated land; however, data is not available.</p>
Landscape	<ul style="list-style-type: none"> <li>· Green Belt</li> </ul>	<p><b>Limited data</b> is available to inform the appraisal. Work is ongoing to ensure that all site options are categorised in terms of potential for landscape impacts and also the potential to result in loss of functioning Green Belt (i.e. Green Belt that meets the established purposes). This work will be drawn upon in the future.</p>

<sup>82</sup> Agricultural land is classified into five grades, with best and most versatile classified as Grade 1 to 3a. High quality agricultural land is a finite resource, in that it is difficult if not impossible to replace it.

<sup>83</sup> Environmental Stewardship is an agri-environment scheme which provides funding to farmers who deliver effective environmental management on their land. ES land is likely to be of relatively high biodiversity value and potentially 'well farmed' in general terms.

Topic	Relevant criteria (Location in relation to...)	Notes
Water		<p><b>No data</b> is available to inform appraisal in terms of water quality; however, this is not a major issue for the appraisal.<sup>84</sup> Whilst water pollution sensitivity may vary spatially (including relating to issues associated with the capacity of Waste Water Treatment Works), in the absence of a detailed Water Cycle Study there is no mapped data. It is also the case that issues can often be appropriately addressed through masterplanning/ design measures, and so are appropriately considered at the planning application stage. The same can be said for drainage issues.</p> <p>In terms of water resource availability, this does not vary significantly within the District, and hence need not be a consideration here. It is also not possible to appraise site options in terms of the potential to support water efficiency. Whilst it might be suggested that larger development schemes might be more able to deliver higher standards of sustainable design (including water efficiency measures) this assumption will not always hold true.</p>

<sup>84</sup> It is unnecessary to appraise site options in terms of groundwater 'source protection zones' and 'primary aquifers'. The presence of a groundwater source protection zone or aquifer does not represent a major constraint for most (non-polluting) types of development.

Table B: Site appraisal criteria with performance categories

Criteria (Location in relation to...)		'RAG thresholds'
1	Air Quality Management Area (AQMA)	<b>R</b> = Within or adjacent to AQMA <b>A</b> = <1,000m from an AQMA <b>G</b> = >1km from an AQMA
2	European Site (SAC, SPA & Ramsar)	<b>R</b> = <400m <b>A</b> = <400m - 5km <b>G</b> = >5km
3	Site of Scientific Interest (SSSI)	<b>R</b> = <200m <b>A</b> = <200m - 800m <b>G</b> = >800m
4	Local Nature Reserve	<b>R</b> = Intersect <b>A</b> = adjacent - 2km <b>G</b> = >2km
5	Local Wildlife Site	<b>R</b> = Intersect <b>A</b> = <400m <b>G</b> = >2km
6	Ancient Semi Natural Woodland	<b>R</b> = Includes or is adjacent <b>A</b> = <50m <b>G</b> = >50m
7	Forestry Inventory Woodland	<b>A</b> = Intersect
8	Listed building	<b>R</b> = Intersects or adjacent <b>A</b> = <50m <b>G</b> = >50m
9	Registered Park or Garden	<b>R</b> = Intersects or adjacent <b>A</b> = <50m <b>G</b> = >50m
10	Scheduled Monument	<b>R</b> = Intersects or adjacent <b>A</b> = <50m <b>G</b> = >50m
11	Conservation Area	<b>R</b> = Intersects or adjacent <b>A</b> = <50m <b>G</b> = >50m
12	Flood risk zone	<b>R</b> = > 10% of site intersects a flood risk zone <b>A</b> = 1 - 10% of site intersects a flood risk zone <b>G</b> = Not within a Flood risk zone
13	Green Belt	<b>R</b> = Site is within Green Belt
14	Agricultural land under Environmental Stewardship	<b>A</b> = Intersect

Criteria (Location in relation to...)	'RAG thresholds'
15 Agricultural Land Classification	<b>R</b> = Grade 1 & 2 <b>A</b> = Grade 3 <b>G</b> = Other / ungraded
16 Bus stop	<b>R</b> = >800m <b>A</b> = 400m - 800m <b>G</b> = <400m
17 Train Station	<b>R</b> = >1.2km <b>A</b> = 600m - 1.2km <b>G</b> = <600m
18 GP surgery / medical centre	<b>R</b> = >1.2km <b>A</b> = 600m-1.2km <b>G</b> = <600m
19 Primary School	<b>R</b> = >1.2km <b>A</b> = 600m-1.2km <b>G</b> = <600m
20 Secondary School	<b>R</b> = >3.2 km <b>A</b> = 1.6 km - 3.2 km <b>G</b> = <1.6 km
21 Town Centre	<b>R</b> = >1.2km <b>A</b> = 600m-1.2km <b>G</b> = <600m
22 Employment areas	<b>R</b> = >1.2km <b>A</b> = 600m-1.2km <b>G</b> = <600m
23 Area of overall deprivation	<b>G</b> = Site intersects with an 'output area' that is relatively deprived (i.e. in the 0-20% (1 <sup>st</sup> quintile) most deprived in the District. <b>A</b> = second quintile

### Site options appraisal findings

Table C presents an appraisal of all site options in terms of all the appraisal criteria introduced above.

To reiterate, this table is presented for completeness. It is recognised that only limited understanding can be gained from strict GIS analysis; and equally it is recognised that presenting appraisal findings for all site options in tabular format is in practice of limited assistance to those interested in the spatial strategy.

N.B. The spreadsheet containing the underlying data is available upon request. The spreadsheet allows for more effective interrogation of the data as it is possible to compare and contrast particular sites (that might be alternatives) and examine sub-sets (e.g. sites around a particular settlement, or sites above a certain size).

Table C: Site options appraisal findings (N.B. Preferred Allocations are highlighted in Yellow)

Criteria		AQMA	SAC	SPA	Ramsar	SSSI	Local Nature Reserve	Local Wildlife Site	Ancient Semi Natural Woodland	Forestry Inventory Woodland	Listed Building	Registered Park or Garden	Scheduled Monument	Conservation Area	Flood Risk Zone	Green Belt	Env Stewardship Scheme	Agricultural Land Classification	Bus Stop	Train Station	GP Surgery / Medical Centre	Primary School	Secondary School	Community Facilities	Employment Areas	Area of Overall Deprivation
Site Option																										
BISH3	Bishops Stortford North: ASR5																									
BISH9	East of Manor Links																									
BISH7	Bishops Stortford South (+ Employment Land)																									
SAWB2	Sawbridgeworth West: North West Road																									
HERT2	Mead Lane North																									
HERT4	North																									
HERT5	South																									
HERT3	West B: South of Welwyn Road																									
BISH7	The Goods Yard																									
HERT3	West A: North of Welwyn Road																									
BISH3 01/023	Bishops Stortford: ASR1-4																									
SAWB4	North Sawbridgeworth																									
EOS1	East Of Stevenage																									
EWEL1	East of Welwyn Garden City																									
WARE2	North and East of Ware																									
SAWB3	Sawbridgeworth West: South West Road																									
BISH6	Bishops Stortford High School																									
GA1	Gilston Area																									
03/002	National Grid Site / Norbury Woodyard, Marshgate Drive																									

Criteria		AQMA	SAC	SPA	Ramsar	SSSI	Local Nature Reserve	Local Wildlife Site	Ancient Semi Natural Woodland	Forestry Inventory Woodland	Listed Building	Registered Park or Garden	Scheduled Monument	Conservation Area	Flood Risk Zone	Green Belt	Env Stewardship Scheme	Agricultural Land Classification	Bus Stop	Train Station	GP Surgery / Medical Centre	Primary School	Secondary School	Community Facilities	Employment Areas	Area of Overall Deprivation
Site Option																										
03/007	The Old Orchard, Hertingfordbury Road	Yellow	Yellow	Green	Green	Green	Green	Yellow	Green	Yellow	Green	Green	Green	Green	Green			Green	Yellow	Red	Yellow	Red	Green	Red	Yellow	
03/008	Fire Station and HQ	Red		Yellow	Yellow	Green	Green	Green	Green		Green	Green	Green	Green	Green			Green	Green	Green	Yellow	Green	Green	Green	Green	
03/009	West Street Allotments	Yellow		Green	Green	Green	Green	Green	Green		Green	Green	Green	Green	Green			Green	Yellow	Red	Yellow	Red	Green	Green	Green	Green
03/012	13-19 Castle Mead Gardens	Red		Green	Green	Green	Yellow	Green	Green		Green	Green	Green	Green	Red			Green	Green	Yellow	Green	Green	Green	Green	Green	
03/016	1-14 Dicker Mill	Yellow		Yellow	Yellow	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Red			Green	Green	Yellow	Green	Green	Green	Green	Green	
03/017	30-34 & 33-41 Chambers Street	Yellow		Green	Green	Green	Green	Green	Green		Yellow	Green	Green	Green	Red			Green	Green	Yellow	Green	Green	Green	Green	Green	
03/020	Land at Braziers Field	Yellow		Green	Green	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Green			Green	Yellow	Red	Yellow	Yellow	Green	Red	Green	
03/024	Hertford Delivery Office	Red		Yellow	Yellow	Green	Green	Green	Green		Yellow	Green	Green	Green	Red			Green	Green	Yellow	Green	Green	Green	Green	Yellow	
03/111	Land east of Marshgate Drive (Mead Lane Residual)	Yellow		Yellow	Yellow	Green	Green	Red	Green		Yellow	Green	Green	Green	Red			Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Green	
01/005	Works, Southmill Road	Yellow		Green	Green	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Red			Green	Green	Yellow	Green	Green	Green	Green	Green	
01/008	Land at Hoggates End	Green		Green	Green	Green	Green	Yellow	Green		Green	Green	Green	Green	Green			Green	Yellow	Red	Red	Yellow	Yellow	Yellow	Red	Yellow
01/009	Land to the rear of 37-57 Haymeads Lane	Yellow		Green	Green	Green	Green	Yellow	Green		Green	Green	Green	Green	Green			Green	Green	Yellow	Green	Green	Green	Yellow	Green	
01/012	Apton Road Car Park	Yellow		Green	Green	Green	Green	Green	Green		Green	Green	Green	Red	Green			Green	Green	Yellow	Green	Green	Green	Green	Yellow	Yellow
01/019	Junior School Site, Bishop's Stortford College	Green		Green	Green	Green	Green	Green	Green	Yellow	Green	Green	Green	Red	Green	Red		Green	Yellow	Red	Yellow	Green	Yellow	Red	Green	
01/021	Whitehall Leys	Green		Green	Green	Green	Green	Yellow	Green		Green	Green	Green	Green	Green			Green	Yellow	Red	Red	Yellow	Green	Yellow	Red	
01/022	Land north of 221 Rye Street	Green		Green	Green	Green	Green	Green	Green		Green	Green	Green	Green	Yellow			Green	Green	Red	Red	Red	Yellow	Red	Green	Yellow
01/023	Land north-east of Farnham Road	Green		Green	Green	Green	Green	Yellow	Green		Green	Green	Green	Green	Green		Yellow	Red	Green	Red	Red	Red	Yellow	Red	Green	Yellow
01/027	Land adjacent to Bournebrook House	Green		Green	Green	Green	Green	Green	Green		Green	Green	Green	Green	Green			Green	Yellow	Red	Red	Red	Yellow	Red	Yellow	Yellow
01/031	Oxford House, London Road	Yellow		Green	Green	Green	Green	Green	Green		Green	Green	Green	Green	Red			Green	Green	Yellow	Green	Green	Green	Yellow	Green	
01/032	Post Office and Delivery	Yellow		Green	Green	Green	Green	Yellow	Green		Green	Green	Green	Red	Green			Green	Green	Yellow	Green	Green	Green	Green	Green	Yellow

Criteria		AQMA	SAC	SPA	Ramsar	SSSI	Local Nature Reserve	Local Wildlife Site	Ancient Semi Natural Woodland	Forestry Inventory Woodland	Listed Building	Registered Park or Garden	Scheduled Monument	Conservation Area	Flood Risk Zone	Green Belt	Env Stewardship Scheme	Agricultural Land Classification	Bus Stop	Train Station	GP Surgery / Medical Centre	Primary School	Secondary School	Community Facilities	Employment Areas	Area of Overall Deprivation		
Site Option																												
	Office	Yellow	Green	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Green	Red	Green	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Green	Green	Yellow	
BISH10 01/119	The Mill Site, Dane Street	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green	Red	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	
01/120	The Goods Yard	Yellow	Green	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Green	Red	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	
01/139	Fire & Ambulance Station	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Red	Yellow	Green	Green	Red	Red	Green	Green	
<b>BISH8 01/028</b>	<b>Council Offices and Land at The Causeway</b>	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Yellow	Red	Red	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Yellow	Green	Green	
01/157	Sports fields associated with Birchwood High School	Yellow	Green	Green	Green	Green	Green	Red	Green	Yellow	Green	Green	Green	Green	Red	Green	Green	Green	Green	Yellow	Green	Green	Red	Green	Green	Green	Green	
01/001	Land at Rye Street	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Red	Green	Green	Green	Red	Yellow	Green	Green	Yellow	Yellow	Yellow	Yellow	
02/001	Land south of Owles Lane	Green	Green	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Green	Green	Yellow	Green	Green	Red	Green	Red	Red	Green	Yellow	Green	Green	Green	Green	
03/001	Bengeo Plant Nursery	Green	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Yellow	Green	Red	Green	Yellow	Red	Red	Red	Green	Green	
05/001	Presdales Pit, Hoe Lane	Green	Yellow	Green	Yellow	Green	Green	Yellow	Green	Yellow	Green	Green	Green	Green	Green	Red	Green	Yellow	Green	Red	Yellow	Green	Red	Red	Red	Green	Green	
06/001	Bride Croft (land south of Upwick Green Road)	Green	Green	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Green	Green	Red	Green	Green	Red	Green	Red	Red	Red	Red	Red	Red	Green	Green	
01/007	Land at 9 Dolphin Road	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Yellow	Red	Green	Green	Green	Red	Yellow	Green	Yellow	Yellow	Yellow	Yellow	Green	Green
03/003	Land north of Molewood Road	Yellow	Green	Green	Green	Green	Yellow	Yellow	Green	Green	Yellow	Green	Green	Green	Yellow	Red	Green	Green	Green	Red	Yellow	Yellow	Red	Red	Red	Red	Green	Green
31/001	Field 5155 (land south of Stortford Road)	Green	Green	Green	Green	Green	Green	Yellow	Green	Green	Yellow	Green	Green	Green	Green	Green	Green	Yellow	Green	Red	Green	Red	Red	Red	Red	Red	Green	Green
43/003	Chells Field (land south of Stevenage Road & east of Gresley Way)	Green	Green	Green	Green	Green	Green	Yellow	Green	Yellow	Green	Yellow	Green	Green	Green	Red	Green	Yellow	Green	Red	Red	Red	Red	Red	Red	Red	Yellow	Green
01/011	Thorley Place	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Red	Green	Yellow	Yellow	Yellow	Red	Red	Red	Red	Green	Green
41/001	Land north of Twyford Bury	Green	Green	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Green	Green	Green	Red	Green	Yellow	Green	Red	Yellow	Green	Red	Red	Red	Green	Green	Green
31/002	Land and buildings at Little Hadham	Green	Green	Green	Green	Green	Green	Red	Green	Yellow	Red	Green	Red	Yellow	Yellow	Green	Green	Red	Green	Red	Yellow	Yellow	Red	Red	Red	Red	Green	Green
05/003	Nuns Triangle (land bound by	Green	Green	Yellow	Yellow	Yellow	Green	Green	Green	Yellow	Green	Red	Green	Green	Green	Red	Green	Yellow	Green	Red	Red	Yellow	Yellow	Yellow	Yellow	Yellow	Green	Green

Criteria		AQMA	SAC	SPA	Ramsar	SSSI	Local Nature Reserve	Local Wildlife Site	Ancient Semi Natural Woodland	Forestry Inventory Woodland	Listed Building	Registered Park or Garden	Scheduled Monument	Conservation Area	Flood Risk Zone	Green Belt	Env Stewardship Scheme	Agricultural Land Classification	Bus Stop	Train Station	GP Surgery / Medical Centre	Primary School	Secondary School	Community Facilities	Employment Areas	Area of Overall Deprivation
Site Option																										
	A10/A1170/Quincey Road)	Green	Green	Yellow	Yellow	Yellow	Green		Green	Yellow	Green	Red	Green	Green	Green	Red		Yellow	Green	Red	Red	Yellow	Yellow	Yellow	Yellow	
03/004	Land east of North Road	Yellow	Green	Green	Green	Green	Yellow	Yellow	Green	Yellow	Green	Yellow	Green	Green	Green	Red		Green	Yellow	Yellow	Green	Green	Yellow	Yellow	Yellow	
03/005	Land west of Mangrove Road	Yellow	Yellow	Yellow	Yellow	Green	Green	Yellow	Green	Yellow	Green	Yellow	Green	Green	Green	Red		Yellow	Yellow	Yellow	Green	Green	Yellow	Yellow	Yellow	
02/005	Land west of Buntingford (between Monks Walk and A10	Green	Green	Green	Green	Green	Green	Yellow	Green		Green	Green	Green	Green	Yellow			Red	Green	Red	Green	Yellow	Green	Yellow	Green	
05/005	Horticultural Nursery, Presdales School	Green	Yellow	Yellow	Yellow	Green	Green	Yellow	Green	Yellow	Yellow	Green	Green	Green	Green	Red		Green	Yellow	Yellow	Green	Green	Yellow	Yellow	Yellow	
05/008	Old Hertfordians Rugby Club, Hoe Lane	Green	Yellow	Yellow	Yellow	Green	Green	Yellow	Green		Green	Green	Green	Green	Green	Red		Green	Yellow	Yellow	Green	Green	Yellow	Yellow	Yellow	
05/019	Hale Club, Hoe Lane	Green	Yellow	Yellow	Yellow	Green	Green	Yellow	Green		Green	Green	Green	Green	Green	Red		Green	Yellow	Yellow	Green	Green	Yellow	Yellow	Yellow	
05/017	Land at Little Acres	Green	Yellow	Yellow	Yellow	Green	Green	Yellow	Green		Green	Green	Green	Green	Green	Red		Green	Yellow	Yellow	Green	Green	Yellow	Yellow	Yellow	
05/013	Land at Rush Green	Green	Yellow	Yellow	Yellow	Green	Green	Yellow	Green		Green	Green	Green	Green	Green	Red		Green	Yellow	Yellow	Green	Green	Yellow	Yellow	Yellow	
04/013	Brickwell Fields (Land north of West Road)	Yellow	Green	Green	Green	Green	Green	Yellow	Green		Green	Green	Green	Green	Green	Red	Yellow	Red	Red	Yellow	Green	Green	Yellow	Yellow	Red	Green
04/012	The Bungalow and land to the east	Yellow	Green	Green	Green	Red	Green	Yellow	Green		Green	Green	Green	Green	Green	Red		Yellow	Green	Red	Yellow	Green	Yellow	Yellow	Red	Green
26/003	Birchall Farm (land north of Birchall Lane)	Green	Green	Green	Green	Green	Yellow	Red	Red	Yellow	Red	Yellow	Green	Green	Green	Red		Yellow	Yellow	Red	Red	Red	Red	Red	Red	Yellow
01/020	Land at Dane O'Coys Road	Green	Green	Green	Green	Green	Green	Red	Green	Yellow	Green	Green	Green	Green	Green	Red		Red	Green	Red	Green	Green	Yellow	Yellow	Red	
01/017	Land North of Great Hadham Rd & East of Monkwood Drive	Green	Green	Green	Green	Green	Green	Yellow	Green		Green	Green	Green	Green	Green	Red		Red	Green	Red	Green	Green	Yellow	Yellow	Red	
04/006	Land at Chalk's Farm (south of West Road)	Yellow	Green	Green	Green	Green	Green	Yellow	Green		Yellow	Green	Green	Green	Yellow	Red	Yellow	Red	Yellow	Red	Green	Green	Yellow	Yellow	Red	
02/008	Land west of London Road	Green	Green	Green	Green	Green	Green	Yellow	Green	Yellow	Green	Green	Green	Green	Green			Yellow	Green	Red	Red	Green	Yellow	Yellow	Yellow	
04/008	Land at Northfield House, Cambridge Road	Yellow	Green	Green	Green	Yellow	Green	Yellow	Green		Yellow	Green	Green	Green	Green	Red		Yellow	Green	Yellow	Yellow	Green	Yellow	Yellow	Red	Green
01/014	Land at Bishops Stortford Golf Club	Yellow	Green	Green	Green	Green	Green	Yellow	Green		Green	Green	Green	Green	Green	Red		Yellow	Green	Red	Yellow	Green	Yellow	Yellow	Red	Green



Criteria		AQMA	SAC	SPA	Ramsar	SSSI	Local Nature Reserve	Local Wildlife Site	Ancient Semi Natural Woodland	Forestry Inventory Woodland	Listed Building	Registered Park or Garden	Scheduled Monument	Conservation Area	Flood Risk Zone	Green Belt	Env Stewardship Scheme	Agricultural Land Classification	Bus Stop	Train Station	GP Surgery / Medical Centre	Primary School	Secondary School	Community Facilities	Employment Areas	Area of Overall Deprivation
Site Option																										
03/010	Land west of Thieves Lane & south of Welwyn Road	Yellow	Yellow	Green	Green	Green	Yellow	Red	Red	Yellow	Green	Red	Green	Green	Green	Red		Green	Green	Yellow	Green	Yellow	Green	Red	Yellow	
05/014	Land at Crane Mead	Green		Yellow	Yellow		Green	Red	Green	Yellow	Green	Green	Green	Green	Yellow	Red		Yellow	Yellow			Yellow	Green	Green	Yellow	
17/002	Land west of Brickendon Lane	Green	Yellow	Green	Green		Green	Red	Green		Green	Yellow	Green	Green	Yellow	Red		Yellow	Green	Red	Yellow	Green	Red	Yellow	Yellow	
01/024	154.57	Green	Green	Green	Green		Green	Red	Green	Yellow	Red	Green	Green	Green	Yellow	Red	Yellow	Green	Green	Yellow	Green	Green	Green	Yellow	Green	
04/014	Land south of Bridgefoot House	Yellow	Green	Green	Green	Yellow	Green	Red	Green		Yellow	Green	Green	Red	Yellow	Red		Green	Green	Yellow	Green	Green	Green	Red	Yellow	
26/004	Hatfield Estate (land surrounding Munn's Farm)	Green	Yellow	Green	Green		Yellow	Red	Red	Yellow	Red	Yellow	Red	Green	Yellow	Red	Yellow	Yellow	Green	Red	Red	Yellow	Red	Red	Yellow	Yellow
31/006	Land east of Ashcroft Farm	Green	Green	Green	Green		Green	Yellow	Green		Green	Green	Green	Green	Green			Yellow	Green	Red	Red	Green	Red	Red	Yellow	
41/003	Thorley Wash Grange	Green	Green	Green	Green	Red	Green	Yellow	Green		Red	Green	Green	Green	Green	Red		Red	Green	Red	Red	Yellow	Green	Red	Yellow	Green
BISH5 41/002	Land south of Whittington Way	Green	Green	Green	Green	Red	Green	Yellow	Green		Yellow	Green	Green	Green	Green	Red		Red	Green	Red	Red	Yellow	Green	Red	Yellow	Green
04/015	Land west of the River Stort and south of Station Road	Yellow	Green	Green	Green	Yellow	Green	Red	Green		Red	Green	Green	Green	Yellow	Red		Green	Green	Yellow	Green	Green	Green	Red	Yellow	
44/005	Land to the north & east of Ware	Green	Green	Yellow	Yellow	Yellow	Green	Red	Green	Yellow	Green	Yellow	Green	Green	Green	Red	Yellow	Red	Green	Red	Yellow	Yellow	Red	Red	Yellow	Yellow
43/002	Land to the north east of Stevenage, Boxbury Farm & Chells Farm	Green	Green	Green	Green	Yellow	Green	Red	Red	Yellow	Green	Green	Green	Green	Green	Red	Yellow	Yellow	Green	Red	Red	Yellow	Red	Red	Yellow	Yellow
01/003	Woodlands Lodge, Dunmow Road	Green	Green	Green	Green	Green	Yellow	Green	Green		Green	Green	Green	Green	Green	Red		Red	Green	Red	Yellow	Green	Red	Green	Yellow	
44/001	Land north of Ware	Green	Green	Yellow	Yellow	Green	Green	Red	Green	Yellow	Green	Red	Green	Green	Green	Red		Red	Green	Yellow	Green	Yellow	Red	Red	Yellow	Yellow
03/021	Goldings, Orchard House	Green	Green	Green	Green	Green	Yellow	Red	Green	Yellow	Green	Red	Green	Green	Yellow	Red		Yellow	Yellow	Red	Red	Green	Red	Red	Yellow	Green
03/014	Land west of London Road Cottages, Balls Park	Yellow	Yellow	Yellow	Yellow	Green	Green	Yellow	Green	Yellow	Green	Red	Green	Green	Green	Red		Green	Green	Red	Red	Yellow	Yellow	Green	Yellow	
01/030	Land at Hallingbury Road	Yellow	Green	Green	Green	Green	Green	Yellow	Green	Yellow	Green	Green	Green	Green	Yellow	Red		Green	Green	Yellow	Red	Green	Green	Yellow	Yellow	
03/022	Chelmsford Lodge, Valeside	Yellow	Yellow	Green	Green	Green	Green	Yellow	Green	Yellow	Green	Green	Green	Green	Green	Red		Green	Green	Yellow	Red	Green	Yellow	Green	Yellow	

Criteria																										
		AQMA	SAC	SPA	Ramsar	SSSI	Local Nature Reserve	Local Wildlife Site	Ancient Semi Natural Woodland	Forestry Inventory Woodland	Listed Building	Registered Park or Garden	Scheduled Monument	Conservation Area	Flood Risk Zone	Green Belt	Env Stewardship Scheme	Agricultural Land Classification	Bus Stop	Train Station	GP Surgery / Medical Centre	Primary School	Secondary School	Community Facilities	Employment Areas	Area of Overall Deprivation
Site Option																										
03/025	Land west of Mangrove Road	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
41/005	Land at Pig Lane	Green	Green	Green	Green	Yellow	Green	Red	Green	Yellow	Green	Green	Green	Green	Green	Red	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green
01/010	Bishop's Stortford Football Club	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
01/033	Land at Styleman's Farm	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
03/120	Land at Wadesmill Road	Green	Green	Yellow	Yellow	Green	Green	Red	Green	Yellow	Green	Green	Green	Green	Green	Red	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green
03/019	Land at Goldings Manor	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green	Green	Green	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
03/134	Land south of Hornsmill Road	Green	Yellow	Green	Green	Green	Green	Red	Green	Yellow	Green	Red	Green	Green	Yellow	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
01/136	Land at Bishop's Stortford Golf Course, Dunmow Road	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
31/025	Hadham Industrial Estate & Church End Farm	Green	Green	Green	Green	Green	Green	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
31/027	Land north of Pathway Cottages	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Green	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
31/028	Land north of Stanemede	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
31/029	Land south of The Smithy	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
03/152	Land north of Welwyn Road	Green	Green	Green	Green	Green	Yellow	Red	Green	Yellow	Green	Yellow	Green	Green	Green	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
03/153	Land east of Queens Road	Yellow	Yellow	Yellow	Yellow	Green	Green	Red	Green	Yellow	Green	Green	Green	Green	Green	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
04/062	Land north of Station Road	Yellow	Green	Green	Green	Yellow	Green	Red	Green	Yellow	Green	Green	Green	Red	Red	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
44/006	Land west of Great Cozens	Green	Green	Yellow	Yellow	Green	Green	Yellow	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow
41/007	Land east of London Road	Green	Green	Green	Green	Yellow	Green	Green	Green	Yellow	Green	Green	Green	Green	Green	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
01/159	Land east of Thorley Lane East	Green	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green	Green	Yellow	Red	Yellow	Green	Red	Red	Green
01/158	Land east of London Road	Green	Green	Green	Green	Yellow	Green	Yellow	Green	Yellow	Green	Green	Green	Green	Green	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green

Criteria		AQMA	SAC	SPA	Ramsar	SSSI	Local Nature Reserve	Local Wildlife Site	Ancient Semi Natural Woodland	Forestry Inventory Woodland	Listed Building	Registered Park or Garden	Scheduled Monument	Conservation Area	Flood Risk Zone	Green Belt	Env Stewardship Scheme	Agricultural Land Classification	Bus Stop	Train Station	GP Surgery / Medical Centre	Primary School	Secondary School	Community Facilities	Employment Areas	Area of Overall Deprivation
Site Option																										
01/160	Land south of Cannons Mill Lane	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Yellow	Green	Green	Green	Red	Green	Green	Green	Green	Red	Red	Yellow	Green	Red	Green	Green
01/161	Land north of Cannons Mill Lane	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Red	Green	Green	Green	Green	Red	Red	Yellow	Green	Red	Green	Green
01/042	Land west of Farnham Road (north of bypass)	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Red	Green	Green	Green	Red	Red	Yellow	Green	Red	Yellow	Yellow
01/004	Land west of Farnham Road (south of bypass)	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green	Green	Green	Red	Red	Yellow	Green	Red	Yellow	Yellow
03/006	Land adjacent to London Road	Red	Yellow	Yellow	Yellow	Green	Green	Yellow	Green	Yellow	Green	Yellow	Green	Green	Green	Red	Green	Green	Green	Yellow	Yellow	Green	Green	Green	Green	Green
21/002	Redricks, Hollingson Meads, Sayes Park, Gilston Park (part)	Yellow	Green	Green	Green	Green	Yellow	Red	Green	Yellow	Red	Green	Green	Yellow	Red	Red	Green	Green	Green	Green	Yellow	Yellow	Red	Red	Red	Green
03/156	6-10 Marshgate Trading Estate, Marshgate Drive	Yellow	Yellow	Yellow	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green	Green	Green	Red	Red	Yellow	Yellow	Red	Yellow	Green
41/008	1 Thorley High, Thorley Street	Green	Green	Green	Green	Yellow	Green	Yellow	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green	Green	Red	Red	Yellow	Green	Red	Yellow	Green
05/090	Land at Trapstyle Wood, Park Lane	Green	Green	Yellow	Yellow	Green	Green	Yellow	Green	Green	Yellow	Green	Green	Green	Green	Red	Green	Green	Green	Red	Red	Yellow	Green	Red	Yellow	Green
31/024	Land south of Stortford Road	Green	Green	Green	Green	Green	Green	Yellow	Green	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Red	Yellow	Red	Red	Red	Green
04/056	Land at Kecksys Farm, Cambridge Road	Yellow	Green	Green	Green	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green	Green	Red	Red	Yellow	Green	Yellow	Red	Green
01/043	Land at Bournebrook & Partridges	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Red	Yellow	Yellow	Red	Yellow	Yellow
01/162	Finch Croft, Thorley Lane West	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Red	Green	Green	Green	Red	Red	Yellow	Yellow	Red	Red	Green
01/002	Land to the Rear of 165 and 167 Rye Street	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Red	Yellow	Yellow	Yellow	Yellow	Yellow
01/006	34 Rye Street	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Green	Red	Yellow	Yellow	Green	Red	Red	Yellow
01/015	Blyth Farm	Green	Green	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green	Green	Red	Red	Yellow	Red	Red	Red	Yellow
01/016	Rock Cottage, Blyth Farm	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Yellow	Red	Green	Green	Green	Red	Red	Yellow	Red	Red	Red	Yellow
01/018	Land South of Maze Green Road	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green	Green	Red	Yellow	Yellow	Green	Yellow	Red	Green

Criteria		AQMA	SAC	SPA	Ramsar	SSSI	Local Nature Reserve	Local Wildlife Site	Ancient Semi Natural Woodland	Forestry Inventory Woodland	Listed Building	Registered Park or Garden	Scheduled Monument	Conservation Area	Flood Risk Zone	Green Belt	Env Stewardship Scheme	Agricultural Land Classification	Bus Stop	Train Station	GP Surgery / Medical Centre	Primary School	Secondary School	Community Facilities	Employment Areas	Area of Overall Deprivation
Site Option																										
01/025	Bishop's Stortford Air Cadet HQ	Yellow	Green	Green	Green	Green	Green	Red	Green	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Yellow	Green	Yellow	Yellow	Yellow	Green
03/013	Land to the East of East Lodge, Balls Park	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green	Green	Red	Red	Yellow	Red	Red	Green	Green
03/015	Land to the rear of Fireflies	Yellow	Green	Green	Green	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Green	Red	Green	Green	Green	Yellow	Red	Yellow	Red	Red	Red	Green
03/018	Former McMullen Brewery	Red	Yellow	Yellow	Yellow	Green	Green	Green	Green	Green	Red	Green	Green	Green	Red	Red	Green	Green	Green	Yellow	Green	Green	Green	Green	Green	Yellow
03/023	Adjacent 145 North Road	Yellow	Yellow	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green	Green	Yellow	Green	Green	Yellow	Yellow	Green	Green
03/157	Hertford Industrial Estate	Yellow	Green	Green	Yellow	Green	Green	Yellow	Green	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Yellow	Green	Yellow	Green	Yellow	Green	Green
04/001	Land at 'The Colt'	Green	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Red	Red	Red	Red	Yellow	Red	Red	Red	Green
04/003	Land to the rear of 4 Newports	Yellow	Green	Green	Green	Green	Green	Yellow	Green	Green	Yellow	Green	Green	Green	Green	Green	Green	Red	Green	Red	Red	Yellow	Red	Red	Red	Green
04/004	Land adjacent to east edge of Rowney Wood	Yellow	Green	Green	Green	Green	Green	Red	Green	Yellow	Yellow	Green	Green	Green	Green	Red	Green	Yellow	Yellow	Red	Red	Yellow	Red	Red	Red	Green
04/005	Land at Thomas Rivers Hospital	Yellow	Green	Green	Green	Green	Green	Red	Green	Yellow	Yellow	Green	Green	Green	Green	Red	Green	Red	Green	Green	Yellow	Green	Yellow	Red	Red	Green
04/007	Land west of Sawbridgeworth	Yellow	Green	Green	Green	Yellow	Green	Green	Green	Yellow	Red	Green	Green	Green	Yellow	Red	Green	Red	Red	Yellow	Green	Green	Yellow	Red	Red	Green
04/007	Land west of Sawbridgeworth	Yellow	Green	Green	Green	Green	Green	Red	Green	Yellow	Red	Green	Green	Green	Green	Red	Green	Red	Red	Yellow	Green	Green	Yellow	Red	Red	Green
04/009	Land north of Chaseways	Yellow	Green	Green	Green	Green	Green	Yellow	Green	Yellow	Green	Green	Green	Green	Green	Red	Green	Red	Red	Yellow	Green	Yellow	Red	Red	Red	Green
04/010	Land adjacent to Primrose Cottage	Yellow	Green	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Green	Green	Green	Red	Green	Red	Red	Yellow	Green	Yellow	Red	Red	Red	Green
04/011	The Piggeries (land south & west of the Coach House)	Green	Green	Green	Green	Green	Yellow	Green	Green	Yellow	Green	Green	Green	Green	Red	Red	Green	Yellow	Yellow	Red	Red	Yellow	Red	Red	Red	Green
04/018	Land at Thomas Rivers Hospital	Yellow	Green	Green	Green	Green	Green	Red	Green	Yellow	Yellow	Green	Green	Green	Green	Red	Green	Red	Green	Green	Yellow	Green	Yellow	Red	Red	Green
04/055	Triangle Nurseries	Yellow	Green	Green	Green	Green	Green	Yellow	Green	Yellow	Green	Green	Green	Green	Green	Red	Green	Red	Red	Yellow	Green	Yellow	Red	Red	Red	Green
05/096	Viaduct Road	Green	Yellow	Yellow	Yellow	Green	Green	Yellow	Green	Green	Yellow	Green	Green	Red	Red	Red	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Yellow
21/009	Land south of Eastwick Road & Redricks Lane	Green	Green	Green	Green	Green	Yellow	Red	Green	Yellow	Red	Green	Green	Green	Red	Red	Green	Red	Green	Red	Red	Red	Red	Red	Red	Yellow

Criteria		AQMA	SAC	SPA	Ramsar	SSSI	Local Nature Reserve	Local Wildlife Site	Ancient Semi Natural Woodland	Forestry Inventory Woodland	Listed Building	Registered Park or Garden	Scheduled Monument	Conservation Area	Flood Risk Zone	Green Belt	Env Stewardship Scheme	Agricultural Land Classification	Bus Stop	Train Station	GP Surgery / Medical Centre	Primary School	Secondary School	Community Facilities	Employment Areas	Area of Overall Deprivation
27/001	Builders Yard	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green	Red	Green	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
27/002	Sayes Park Farm	Green	Green	Green	Green	Green	Yellow	Red	Red	Yellow	Yellow	Green	Green	Red	Yellow	Red	Green	Green	Green	Yellow	Green	Red	Red	Red	Red	Green
27/003	Land surrounding High Wych Grange	Green	Green	Green	Green	Green	Green	Yellow	Green	Yellow	Yellow	Green	Green	Red	Green	Red	Green	Green	Green	Yellow	Green	Yellow	Red	Red	Red	Green
45/004	Land North of 25 Walkern Road	Green	Green	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Green	Green	Yellow	Red	Green	Green	Green	Green	Green	Yellow	Red	Red	Red	Green
45/007	Land North of Great Innings North	Green	Green	Green	Green	Green	Green	Yellow	Green	Yellow	Green	Green	Green	Green	Green	Red	Yellow	Green	Green	Green	Green	Yellow	Red	Red	Red	Green
45/003	Land at 22 Great Innings	Green	Green	Green	Green	Green	Green	Yellow	Green	Green	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Red	Red	Red	Green
45/001	Watton-at-Stone Depot, off Station Road	Green	Green	Green	Green	Green	Green	Yellow	Green	Green	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Red	Red	Red	Green
45/009	The Allotments, Church Walk	Green	Green	Green	Green	Green	Green	Yellow	Green	Green	Yellow	Green	Green	Green	Green	Red	Green	Green	Green	Green	Green	Yellow	Red	Red	Red	Green
45/002	Land and buildings at Perrywood Lane	Green	Green	Green	Green	Green	Green	Red	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green	Green	Green	Green	Yellow	Red	Red	Red	Green
02/004	Land east of Buntingford (South of Causeway & North of Hare Street Road)	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Green

## APPENDIX VI: SPATIAL STRATEGY ALTERNATIVES APPRAISAL

### Introduction

As explained within 'Part 1' above, a focus of work has been on the development and appraisal of spatial strategy alternatives, with a view to informing determination of the preferred strategy. The alternatives are as follows (NB. significantly differentiating figures from Option 1a are highlighted in **red**)

Spatial area		Spatial options to deliver ~18,000 new homes			Spatial options to deliver ~19,500 new homes
		Option 1a: Preferred Option identified through the Strategic Spatial Options Study	Option 1b: Removal of ~3,000 dwellings from the GB and instead direct towards rural area	Option 1c: Removal of ~3,000 dwellings from the GB and instead direct towards two new settlements	Option 2a: 1a plus other sites Buntingford & north of Harlow identified through evidence
'Givens' (up to July 2016)	Completions	2625	2625	2625	2625
	Permissions	2435	2435	2435	2435
	Windfall assumption	800	800	800	800
	<b>Sub-total</b>	<b>5860</b>	<b>5860</b>	<b>5860</b>	<b>5860</b>
Potential allocations / broad locations ('choices')	Bishop's Stortford	4142	3392	3392	4142
	Buntingford	0	0	0	400
	East of Stevenage	600	600	600	600
	East of Welwyn	1350	1350	1350	1350
	Harlow fringe (Sites A and E)	3050	3050	3050	3050
	Harlow fringe (Site B) City and Country	0	0	0	160
	Harlow fringe (Site C) Land north of Pye Corner	0	0	0	50
	Harlow fringe (Site G) Land north of the Stort/ south Gilston	0	0	0	900
	Hertford	950	200	200	950
	Sawbridgeworth	500	0	0	500
	Ware	1000	0	0	1000
	Larger villages / NP (Group 1 Villages)	500	3500	500	500
	Other (SLAA (over 10 dwellings) deliverable sites in existing urban areas)	88	88	88	88
	New settlement (option 2 - Little Hadham)	0	0	1500	0
	New settlement (option 4 – Watton-at-Stone)	0	0	1500	0
		<b>Sub-total</b>	<b>12180</b>	<b>12180</b>	<b>12180</b>
	<b>Total</b>	<b>18040</b>	<b>18040</b>	<b>18040</b>	<b>19550</b>

Whilst Chapter 7 presents summary appraisal findings, this Appendix presents detailed appraisal findings.

### Appraisal methodology

For each of the options, the assessment identifies / evaluates 'likely significant effects' on the baseline, drawing on the sustainability topics/objectives identified through scoping (see Table 4.1) as a methodological framework.

**Green** is used to indicate significant positive effects, whilst **red** is used to indicate significant negative effects. Every effort is made to predict effects accurately; however, this is inherently challenging given the high level nature of the policy approaches under consideration. The ability to predict effects accurately is also limited by understanding of the baseline (now and in the future under a 'no plan' scenario). In light of this, there is a need to make considerable assumptions regarding how scenarios will be implemented 'on the ground' and what the effect on particular receptors will be.<sup>85</sup> Where there is a need to rely on assumptions in order to reach a conclusion on a 'significant effect' this is made explicit in the appraisal text.

Where it is not possible to predict likely significant effects on the basis of reasonable assumptions, efforts are made to comment on the relative merits of the alternatives in more general terms and to indicate a **rank of preference**. This is helpful, as it enables a distinction to be made between the alternatives even where it is not possible to distinguish between them in terms of 'significant effects'.

Finally, it is important to note that effects are predicted taking into account the criteria presented within Regulations. So, for example, account is taken of the duration, frequency and reversibility of effects. Cumulative effects are also considered (i.e. where the effects of the plan in combination with the effects of other planned or on-going activity that is outside the control of the East Herts District Plan).

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<sup>85</sup> Considerable assumptions are made regarding infrastructure delivery, i.e. assumptions are made regarding the infrastructure (of all types) that will come forward in the future alongside (and to some extent funded through) development.

Appraisal findings

Appraisal findings are presented below within 11 separate tables (each table dealing with a specific sustainability topic) with a final table drawing conclusions.

The appraisal methodology is explained above, but to reiterate: For each sustainability topic the performance of each scenario is categorised in terms of 'significant effects (using red / green) and also ranked in order of preference. Also, '=' is used to denote instances of all alternatives performing on a par.

Sustainability Topic: <u>Air quality</u>				
	Option 1a	Option 1b	Option 1c	Option 2a
Rank	★ 1	4	3	2
Significant effects?	No			
Discussion	<p>The baseline information identifies that there are air quality issues at Bishop's Stortford (AQMA designated in the town centre), Hertford (AQMA designated at Mill Road/A414 roundabout) and Sawbridgeworth (AQMA designated on London Road). 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. Traffic modelling indicates that future development within the District has the potential for significant impacts on the existing road network unless appropriate mitigation is delivered. This includes increased traffic on the A1184 through Sawbridgeworth, the A414 through Hertford and several junctions including the town centre in Bishop's Stortford. It should be noted that in addition to the general volume of traffic running through Bishop's Stortford town centre, the orientation and height of buildings prevent the dispersal of pollutants. Regular monitoring indicates that heavy goods vehicles are the main source of Nitrogen Dioxide pollution.</p> <p>Options 1a and 2a direct a higher level of growth towards these settlements compared to Options 1b and 1c. While this could result in more localised impacts to junctions within and surrounding these settlements it also provides a better opportunity in terms of reducing the need to travel as development is being directed towards areas with better access to employment opportunities, services/facilities and sustainable transport modes. It also offers more opportunities to provide infrastructure improvements to help address existing issues. Along with key highway infrastructure improvements (see transport theme), it will be vital to encourage a modal shift through improved sustainable transport modes. Evidence suggests that there are sufficient mitigation measures/infrastructure improvements available to address traffic impacts as a result of development proposed through Option 1a and the majority of development proposed through Option 2a to the north of Harlow could not be accommodated unless additional mitigation/ transport infrastructure improvements are provided during the life of the Plan. However, the potential impact of this on the AQMAs within the three settlements is not known.</p> <p>Option 1b proposes less development around the main settlements compared to Options 1a and 2a, directing it towards the villages and rural areas. This option would therefore result in less localised impacts on the highway network within Hertford, Sawbridgeworth and Bishop's Stortford and therefore increased traffic within the AQMAs compared to Options 1a and 2a. However, while the precise location of development is not known, it is assumed that it would be predominantly small scale and dispersed. This would result in a higher level of development in areas that predominantly have poor access to services/facilities, employment opportunities and sustainable transport modes. The majority of residents would still travel using the private vehicle to the main settlements along key transport routes identified above in order to access a greater range of facilities/services and employment opportunities. The significance of this is</p>			



uncertain at this stage.

Option 1c proposes less development at the main settlements, instead proposing the delivery of two new settlements near Little Hadham and Watton-at-Stone of approximately 1,500 dwellings each. Depending on the precise location of the settlements within the areas of search, they would be less likely to have localised impacts on the highway network within Hertford, Sawbridgeworth and Bishop’s Stortford and therefore increase traffic within the AQMAs compared to Options 1a and 2a. The new settlements would be of sufficient scale to provide some local services/facilities, improved employment opportunities and sustainable transport modes; however, this is unlikely to be of significance. A large number of residents would still travel to the main settlements, including Hertford and Bishop’s Stortford, to access the greater range of facilities/services and employment opportunities on offer or to make connections to larger centres outside East Herts through the railway services. As a result increased traffic within the AQMAs would be likely; however, the significance of this is uncertain at this stage.

**In conclusion:** Options 1a and 2a direct a higher level of growth towards settlements with designated AQMAs (Hertford, Sawbridgeworth and Bishop’s Stortford) compared to Options 1b and 1c and are therefore more likely to result in localised impacts on the highway network and increased traffic within the AQMAs. However, they are also more likely to reduce the need to travel by directing development in areas with better access to employment opportunities, services/facilities and sustainable transport modes. For the majority of development proposed under the options suitable mitigation is likely to be available to reduce the significance of traffic impacts as a result of development within the AQMAs. As identified under the transport theme, encouraging a modal shift will play a vital role in helping to mitigate the impacts of increased traffic. While Options 1a and 2b may result in more localised impacts in the key settlements they offer better opportunities to reduce the need to travel for future and existing residents. Option 2a does not perform as well as Option 1a given the higher overall level of growth and issues relating to traffic mitigation during the Plan period. Option 1c performs slightly better than Option 1b as the larger scale development offers better opportunities to improve access to facilities/services and sustainable transport modes therefore reducing the need to travel. Ultimately, it is difficult to determine the effects of the options on the AQMAs with any certainty.

**Sustainability Topic: Biodiversity & Green Infrastructure**

	Option 1a	Option 1b	Option 1c	Option 2a
Rank	=	=	=	=
Significant effects?	No			
Discussion	<p>The District contains a number of designated sites and important habitats and species as well as key ecological corridors. The HRA process for the emerging District Plan has considered the potential impacts of proposed developments on internationally designated European sites (SAC, SPA &amp; Ramsar site), which includes the Lee Valley SPA and Ramsar site. The HRA for the East Herts District Plan (September 2016) concluded that subject to a number of recommendations, the development proposed through Option 1a would not result in a likely significant effect, either alone or in combination, upon any European sites.</p> <p>A key consideration for the SA is the potential for impacts on national and locally designated biodiversity as well as the GI and habitats that provide connectivity between key sites. For nationally designated sites the impacts that are most likely to arise as a result of the options include increased traffic and therefore increased atmospheric pollution as well as increased disturbance, primarily as a result of recreational activity. For locally designated biodiversity there is a greater potential for the direct loss of habitats as well as more widely the</p>			

fragmentation of key ecological corridors between the sites.

Option 1a focuses the majority of development in the south of the District around the main settlements. Option 2a proposes the same broad locations as Option 1a but proposes a slightly higher level of growth with additional sites proposed at Buntingford and to the north of Harlow. Option 1b and 1c propose less development in the main settlements of Bishop's Stortford, Hertford, Ware and Sawbridgeworth, instead directing this growth (approximately 3,000 dwellings) to the villages and rural areas (Option 1b) and two new settlements (Option 1c) respectively. Given the similarities between the options the reality is that there is unlikely to be a significant difference in terms of the nature and significance of effects under this theme for the District as a whole. The variations in spatial distribution could result in some differences in terms of locally specific impacts on biodiversity and geodiversity; however, this is not likely to be a significant differentiator between the options.

Option 1a and 2a have a greater potential to result in impacts on designated and key biodiversity areas in the south of the District given that more development is being directed to the main settlements in the south compared to Options 1b and 1c. This could include impacts on a number of SSSIs that are in close proximity to the A414, A10 as well as the A1184. Development could increase traffic along these roads leading to increased air pollution (nitrogen deposition) at the SSSIs. There is also the potential for increased recreational activity given the proximity of proposed development to these sites.

Option 1b and 1c also have the potential for impacts on designated biodiversity and habitat connectivity in the south of the District but the likelihood and potential significance of effects are reduced compared to Options 1a and 2a given the lower quantity of development proposed in this area. However, this is uncertain at this stage and there is no evidence to suggest that one Option is likely to have an effect of greater significance on biodiversity to the south when compared to the other options.

Option 1b has a greater likelihood for impacts on designated and key biodiversity areas in the north of the District as more growth is being proposed in the villages and rural area. For the purposes of the SA and identifying reasonable alternatives, it is assumed that this additional development in the rural area would be small scale and located outside of the Green Belt. A greater number of small scale sites across the rural area could cumulatively result in greater fragmentation of habitats, as well as potentially offer less opportunity for the provision of GI. It is difficult to say anything with more certainty as the precise location of development in the rural area is not known.

Option 1c proposes less development at the main settlements, instead proposing the delivery of two new settlements near Little Hadham and Watton-at-Stone of approximately 1,500 dwellings each. It should be noted that the precise location of the new settlements are not known within the areas of search. Potential areas of search for new settlements were identified in Chapter 4 of the Council's Supporting Document and included Area 66: A120 corridor (near Little Hadham) and Area 68: A602 corridor (near Watton-at-Stone). A new settlement in each of those two areas would be unlikely to have impacts of any significance on any SSSIs. However, they could result in the loss of ancient woodland as well as Local Wildlife Sites depending on their precise location but this is uncertain. The Supporting Document identified that one of the greatest areas of concern relating to a new settlement near Watton-at-Stone (Area 68) is the potential impact on the sensitive chalk river environment and the high number of Local Wildlife Sites and woodlands located in the corridor. The delivery of two large sites could offer more opportunities in terms of benefits through the provision of GI when compared to the other options but this is uncertain.



**In conclusion:** The differences in spatial distribution could result in some variations in terms of locally specific impacts on biodiversity & GI; however, these are not considered to be of significance in terms of differentiating between the options. Options 1a and 2a have a greater likelihood for negative effects on key biodiversity and GI in the south of the District, while Options 1b and 1c have a greater likelihood for negative effects on key biodiversity and GI in

the north of the District; however, this is uncertain as the precise location of development is not known. It's possible that the delivery of two strategic sites in Option 1c could offer a better opportunity for benefits through the provision of GI; however, this is uncertain at this stage. It is considered that there is suitable mitigation provided through District Plan policies and available at the project level to ensure that none of the options would have a significant negative effect on this topic.

Sustainability Topic: <u>Climate Change</u>				
	Option 1a	Option 1b	Option 1c	Option 2a
Rank	★ 1	4	3	★ 1
Significant effects?	No			
Discussion	<p>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 Drainage Systems (SUDS).</p> <p>Option 1a and 2c offer similar opportunities to incorporate renewable or low carbon energy infrastructure. Option 2c proposes a slightly higher level of overall housing growth; however, this is unlikely to result in a significant difference between the options in terms of the nature and significance of effects against this topic. These options also focus development towards the main settlements and associated services/facilities, employment opportunities and sustainable transport modes, which should help to reduce the need to travel by the private vehicle. It should be noted that further appraisal work in relation to the Supporting Document identifies that development in excess of the level already permitted in Buntingford cannot be viewed as being sustainable due to the likely increase in out-commuting from the town by car to access services, facilities and employment opportunities in nearby towns. While not a focus of the assessment, it should also be noted that one of the sites proposed under Option 2a to the north of Harlow (Site G - Land north of Stort/ south Gilston) is within Flood Zones 2 and 3.</p> <p>Option 1b focuses less development in the main towns and directs it towards the villages and across the rural area. It is assumed that this would result in the delivery of a greater number of small scale sites compared to the other options. This would provide fewer opportunities for incorporating renewable or low carbon energy infrastructure. It would also result in higher levels of movement as residents would need to travel to the main settlements to access the greater range of services/facilities on offer.</p> <p>Option 1c provides opportunities to incorporate renewable or low carbon energy infrastructure through the delivery of two new settlements. The new settlements would be of sufficient scale to provide some local services/facilities as well as improved employment opportunities and sustainable transport modes. However, this is unlikely to be of significance given the scale of development and when compared to the offer of the main settlements. A large number of residents would still travel to the main settlements, including Hertford and Bishop's Stortford, to access the greater range of facilities/services and employment opportunities on offer. This option is therefore less likely to reduce the need to travel when compared to Options 1a and 2a.</p> <p><b>In conclusion:</b> Options 1a and 2a offer the best potential to reduce the need to travel by directing development towards areas with good access to services/facilities, employment</p>			



opportunities and sustainable transport modes. There are similar opportunities to incorporate renewable or low carbon energy infrastructure for Options 1a, 1c and 2a. Option 1b performs poorly compared to the others as it proposes a higher level of growth in the rural area, which reduces the potential to reduce the need to travel as well as incorporate renewable or low carbon energy infrastructure.

Sustainability Topic: <u>Community &amp; Wellbeing</u>				
	Option 1a	Option 1b	Option 1c	Option 2a
Rank	★ 1	4	3	★ 1
Significant effects?	No	Yes	No	
Discussion	<p>The discussion below focuses to a large extent on the likelihood of delivering community facilities as part of / alongside housing development, with a view to meeting the needs of new and existing communities. It should be noted that there is significant uncertainty in terms of the nature and significance of effects as a result of the options against this theme.</p> <p>Options 1a and 2a focus development towards the main settlements and also seek to provide a sufficient level of housing growth in the rural areas to help meet needs. These options provide more of a balance in terms of the distribution of development for existing urban and rural communities compared to Options 1b and 1c. While Option 2a proposes a higher level of overall growth, with additional development in Buntingford and north of Harlow, it is considered that there are no significant differences between the options.</p> <p>Option 1b has the potential to better meet the needs of rural communities compared to the other options. However, there is also uncertainty as it is assumed that development within the rural area is likely to be dispersed and small scale. As a result, there will be fewer opportunities to provide any significant new or improved community facilities to existing rural communities. This option would also not help to meet the needs of communities in Hertford, Sawbridgeworth and Ware.</p> <p>Option 1c offers the potential to provide new community facilities as part of a two new settlements. However, given the scale of development it is unlikely that the new settlements would be self-contained in terms of community facilities. As identified under transport and climate change, it is likely that residents would still need to travel to the surrounding larger settlements in order to access a greater range of facilities. Similar to Option 1b, this option would also not meet the needs of communities in Hertford, Sawbridgeworth and Ware.</p> <p><b>In conclusion:</b> Options 1a and 2b are considered to perform better than Options 1b and 1c as they propose a more balanced distribution of development between urban and rural areas and are therefore more likely to meet the needs of existing communities within the District. Both Option 1b and 1c would not help to meet the needs of communities in Hertford, Sawbridgeworth and Ware. Larger scale development proposed through Option 1c is considered more likely to result in new or improved community facilities compared to Option 1b.</p>			

Sustainability Topic: <u>Economy &amp; Employment</u>				
	Option 1a	Option 1b	Option 1c	Option 2a
Rank		4	3	
Significant effects?	Yes	No	No	Yes
Discussion	<p>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.</p> <p>Option 1a directs housing towards the main settlements and along the A414 corridor, which supports existing as well as new employment opportunities in these areas. Compared to options 1b and 1c it proposes more development to Bishop's Stortford and is therefore more likely to support employment opportunities in this area, which is close to Stansted Airport and the M11.</p> <p>Option 2a proposes the highest level of overall growth and is therefore likely to have an enhanced positive effect on the economy of the District compared to the other options. This is particularly the case when compared against Option 1b and 1c as it directs housing to help support employment opportunities in the main towns and along the A414 corridor. The Buntingford Employment Study confirms that further residential development beyond that already committed without an accompanying growth in employment would increase the level of out-commuting from the town. As a result, it is unlikely that Option 2a will have an enhanced positive effect when compared to Option 1a in this respect.</p> <p>Option 1b does not direct any development towards Ware and a reduced level of development towards Hertford. The Hertford and Ware Employment Study (June 2016) recommends that the Council develop a strategy that seeks to stem the on-going loss of employment floorspace in Hertford and Ware. Essential to achievement of this objective is ensuring that the Council can demonstrate that it has a 5 year housing land supply. It also recommends that the aim should be to ensure some element of employment floorspace provision through mixed use development. Option 1b would not help to meet the recommendations set out in the Employment Study and would not support employment growth along the A414 corridor. This option also proposes a reduced level of growth in Bishop's Stortford and as a result is less likely to stimulate the economy of this area and take advantage of the opportunities provided by close proximity to Stansted Airport and the M11. It should also be noted that this option does not direct any housing towards Sawbridgeworth. While this option could help to stimulate the rural economy by directing a higher level of housing growth towards the villages and rural areas the significance of the effect is uncertain. The majority of the sites delivered in the rural areas are likely to be small scale and therefore the provision of mixed use development and employment floorspace is less likely.</p> <p>The majority of the comments for Option 1b above are also applicable for Option 1c as they direct the same level of housing development towards Bishop's Stortford, Hertford, Ware and Sawbridgeworth. The key difference is that Option 1c proposes two new settlements near Little Hadham and Watton-at-Stone of approximately 1,500 dwellings each. Potential areas of search for new settlements were identified in Chapter 4 of the Council's Supporting Document and included Area 66: A120 corridor (near Little Hadham) and Area 68: A602 corridor (near Watton-at-Stone). New settlements in these areas could support new employment opportunities; however, the significance of this is not known. While dependant on their precise location the new settlements are less likely to support opportunities in existing employment areas, such as along the A414 and M11 corridors.</p> <p><b>In conclusion:</b> Options 1a and 2a are more likely to support and enhance existing and new</p>			

employment opportunities in the main towns and the A414 and M11 corridor when compared to Options 1b and 1c. Option 2a would have an enhanced positive effect when compared to Option 1a, as it proposes a higher level of overall growth but this is not likely to be of significance. Options 1b and 1c perform poorly when compared to Options 1a and 2a as they would not support existing and new employment opportunities in the main towns and along the A414 corridor. They could offer the potential to support new employment opportunities in the rural area; however, this is uncertain at this stage as there are no available and deliverable sites to provide a new settlement or accommodate the level of growth proposed in the rural area.

**Sustainability Topic: Historic Environment**

	Option 1a	Option 1b	Option 1c	Option 2a
Rank		4		3
Significant effects?	No	Yes	No	

Option 1a focuses the majority of development in the south of the District around the main settlements. Option 1b and 1c propose less development in the main settlements of Bishop's Stortford, Hertford, Ware and Sawbridgeworth, instead directing this growth (approximately 3,000 dwellings) to the villages and rural areas (Option 1b) and two new settlements (Option 1c) respectively. Option 2a proposes the same broad allocations as Option 1a but proposes a slightly higher level of growth with additional sites proposed at Buntingford and to the north of Harlow.

Option 1a and 2a have a greater potential for negative effects on designated heritage assets in the south of the District compared to Options 1b and 1c, particularly in and around the main settlements of Bishop's Stortford, Hertford, Ware and Sawbridgeworth. Furthermore, Option 2a proposes a slightly higher level of overall development with additional dwellings directed towards the north of Harlow and Buntingford. Compared to the other options, 2a is therefore more likely to result in negative effects on the listed buildings and Conservation Area within Buntingford.

Discussion

Option 2a is also likely to have a greater negative effect on the historic environment to the north of Harlow as it proposes an additional 1,110 dwellings in this area. The Co-op Board commissioned consultants to assess the potential suitability of different site options around the periphery of Harlow. Sites A and E were identified as being suitable and are being proposed for the delivery of around 3,000 dwellings under all five of the spatial strategy options being considered as Harlow Fringe. Option 2a is also proposing development at Sites B (City and Country), C (Land to the North of Pye Corner) and G (Land to the north of the Stort/south Gilston). The further assessment work found these sites could potentially be suitable; however, development at Site B (City and Country) was identified as potentially having an unacceptable impact on the locally important Historic Park or Garden of Gilston Park. It also considered that development of Site C would have an unacceptable impact on the character of Gilston village. While development of Site A would also impact on the character of the heritage asset and village, the evidence suggests that appropriate landscaping can help to mitigate this.

Option 1b has a greater likelihood for impacts on designated heritage assets in the north of the District as more growth is being proposed in the villages and rural area. It is assumed that this development would not occur in Green Belt in the south of the District and would primarily be small scale. A greater number of small scale sites across the rural area could have the potential for impacts on a wider number of designated heritage assets compared to the other options as a result of a more dispersed spatial strategy. This could have the potential for a greater negative cumulative effect on the character and historic environment of the District as a

whole. However, this is uncertain at this stage as the precise scale and location of development is not known.

Option 1c proposes less development at the main settlements, instead proposing the delivery of two new settlements near Little Hadham and Watton-at-Stone of approximately 1,500 dwellings each. It should be noted that the precise location of the new settlements at this stage are not known. Potential areas of search for new settlements were identified in Chapter 4 of the Council's Supporting Document and included Area 66: A120 corridor (near Little Hadham) and Area 68: A602 corridor (near Watton at Stone). Depending on its location a new settlement near Watton-at-Stone could have impacts on two Registered Parks and Gardens (Poles Park and Woodhall Park) as well as two Scheduled Monuments (Moated enclosures and a Roman site). It could also potentially have impacts on designated heritage within Ware itself. Depending on its location a new settlement near Little Hadham could have impacts on the villages of Little Hadham, Hadham Ford and Bury Green and their associated Conservation Areas and Listed Buildings. It could also potentially have impacts on designated heritage within Bishop's Stortford.

**In conclusion:** Options 1a and 2b have a greater likelihood to result in negative effects on designated heritage assets in the south of the District, particularly within and around the settlements of Bishop's Stortford, Hertford, Ware and Sawbridgeworth. Furthermore, option 2a proposes development in Buntingford while the other options do not as well as additional development to the north of Harlow; it is therefore more likely to result in impacts on designated heritage assets within these areas. Option 1b proposes a more dispersed distribution of development, with a greater proportion of the overall level of growth directed to the villages and rural areas. While a number of smaller scale developments spread over a large area are individually less likely to have localised impacts of significance on heritage assets - there is the potential to have effects a greater number of assets and therefore a greater likelihood for cumulative negative effects on the historic environment and character of the District. It should be noted that this is uncertain at this stage as the precise scale and location of development is not known. Compared to the other options, the effects of Option 1c will ultimately be dependent on the precise location of the new settlements. Similarly to Option 1b, it is less likely to result in negative effects on heritage assets within and around the main settlements. Depending on the location of the new settlements there could be negative effects on designated heritage assets within the proposed areas of search, which includes Scheduled Monuments, Registered Parks and Gardens and Conservation Areas.

Given uncertainties in relation to the location of growth under Option 1c, there is little to differentiate between Options 1a, 1c and 2a against this theme. The slightly higher level of overall growth proposed under Option 2a through additional development in Buntingford and in the Gilston area, is not considered likely to result in negative effects of greater significance when compared to options 1a and 1b. If the new settlements proposed under Option 1c could be directed away from sensitive areas then this option has the potential to perform better than the others under this topic but this uncertain at this stage. Option 1b performs more poorly under this topic compared to the other options given the greater likelihood for cumulative negative effects as a result of the dispersed distribution of development in the rural area.

Sustainability Topic: <u>Housing</u>				
	Option 1a	Option 1b	Option 1c	Option 2a
Rank	2	3	3	★1
Significant effects?	Yes			
Discussion	<p>The SHMA concludes that the combined level of housing need across the HMA is 46,100 homes for the period 2011 - 2033<sup>86</sup>. This figure has been disaggregated amongst the four authorities. A Draft Memorandum of Understanding (MoU) has been drafted which commits all four Councils to meeting their individual housing needs within their own administrative boundaries. For East Herts, the level of need is 745 new homes per year, or 16,390 by 2033. The Government released new household projections in July 2016. These figures show that, by 2033, the population of East Herts is likely to be greater than originally expected. Following the release of these figures, further work on the SHMA has shown that the level of housing need in the District has increased to around 19,500 new homes by 2033.<sup>87</sup></p> <p>Options 1a, 1b and 1c propose the same overall level of housing growth but there are differences in how this growth is distributed across the District. While these options will not meet the updated full Objectively Assessed Housing Need (OAHN) for the District they are still likely to have a significant long term positive effect through the provision of around 18,000 dwellings during the life of the Plan. Option 2a has the potential for an enhanced positive effect compared to the other options as it is the only one that would meet the updated full OAHN for the District as it proposes around ~19,600 dwellings during the life of the Plan.</p> <p>In terms of the distribution, Options 1b and 1c will not help to meet the housing needs of communities in Hertford, Sawbridgeworth and Ware. Options 1a and 2b are likely to have enhanced positive effects as they propose a more balanced distribution of development across the urban and rural areas of the District. While Option 1b could potentially better help to meet the housing needs of rural communities, there is an element of uncertainty as there are only a limited number of available and deliverable sites in the rural area (SHLAA, 2016). This is also an issue for Option 1c as there are currently no available or deliverable sites to be able to deliver two new settlements near Little Hadham and Watton-at-Stone.</p> <p>Option 2a proposes 400 dwellings in Buntingford; however, there is already been a large number of speculative applications and permissions at the settlement. The Co-Op Board commissioned consultants to assess the potential suitability of different site options around the periphery of Harlow. The additional sites proposed to the north of Harlow under Option 2a are subject to a number of constraints. In particular, Site G (Land north of Stort/ south Gilston) is within areas of significant flood risk and the assessment identified that this would significantly reduce the capacity of this site to accommodate development.</p> <p><b>In conclusion:</b> All of the options have the potential for a significant long-term positive effect against this topic by making a significant contribution towards meeting the OAHN for the District. Option 2a performs the best and has the potential for enhanced positive effects as it proposes the highest level of growth across the District and will meet the updated OAHN for District<sup>88</sup>. However, it should be noted that there are concerns in relation to the deliverability of 1,110 additional dwellings to the north of Harlow. In terms of distribution, Options 1b and 1c</p>			

<sup>86</sup> Opinion Research Services (September 2015) West Essex and East Hertfordshire Strategic Housing Market Assessment: Report of Findings <http://www.uttlesford.gov.uk/CHttpHandler.ashx?id=5344&p=0>

<sup>87</sup> Opinion Research Services (August 2016). Updating the Overall Housing Need Based on 2014 projections for West Essex & East Herts

<sup>88</sup> Updating the Overall Housing Need: Based on 2014-based projections for West Essex & East Herts (Aug 2016). Prepared by Opinion research Services.



will not help to meet the housing needs of communities in Hertford, Sawbridgeworth and Ware. Options 1a and 2b are likely to have enhanced positive effects as they propose a more balanced distribution of development across the urban and rural areas of the District.

Sustainability Topic: <u>Land</u>				
	Option 1a	Option 1b	Option 1c	Option 2a
Rank	★1	★1	★1	4
Significant effects?	Yes			
Discussion	<p>The key issues that need considering within the land topic include the efficiency of use of land<sup>89</sup>, whether there are potential contamination issues, the agricultural quality of land<sup>90</sup>, and how waste issues will be managed.</p> <p>All of the options have the potential for a negative effect on this topic through the loss green field and agricultural land, in particular best and most versatile (BMV) agricultural land. While Option 2a is likely to result in the greatest loss of agricultural land overall given the higher level of overall growth proposed, it is not possible at this stage to say with any certainty that it would result in a greater loss of BMV agricultural land. Options 1a to 1c propose the same overall level of housing growth but there are slight differences in how this growth is distributed across the District. The precise location and layout of development through Options 1b and 1c would determine the level of BMV agricultural land that could be lost.</p> <p>There is an existing safeguarded strategic waste site (Westmill Quarry/Landfill) to the north of Ware between the A602 and A10, which is also identified as an allocation within the adopted (July 2014) Hertfordshire Waste Site Allocations DPD. Options 1a and 2a propose development to the north of Ware approximately 600m away from the Westmill Quarry/Landfill to the east; however, once mitigation is taken into account it is unlikely that there would be any significant residual effects. It should be noted that the easterly part of the site to the north of Ware under Options 1a and 2b is situated within Minerals Area 8 and HCC and may require extraction of sand and gravel. If material is extracted it should be used on-site as construction material.</p> <p>It should also be noted that there is a proposed waste site allocation (Land of Birchall Lane, Cole Green) to the south of development proposed East of Welwyn Garden City. All of the options propose the same level of development in this area; therefore, they are not likely to be any differences in terms of the nature and significance of effects under this topic with regard to that waste site allocation. Ultimately, mitigation provided through District Plan policies and available at the project level should ensure that there are no residual effects of significance. Further work carried out by the Council in relation to the Supporting Document identifies that the extraction of sand and gravel will be required to the north of Birchall Lane; therefore, a process of land remediation will need to be planned to create a development platform that</p>			

<sup>89</sup> 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.

<sup>90</sup> 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.

respects the existing land form. If material is extracted it should be used on-site as construction material.

**In conclusion:** All of the options have the potential for a significant negative effect on this topic through the loss of agricultural and greenfield land. At this stage, it is difficult to determine which options would result in the greatest loss of best and most versatile agricultural land as the precise location of development under some of the options is not known.

**Sustainability Topic: Landscape**

	Option 1a	Option 1b	Option 1c	Option 2a
Rank	=	=	=	=
Significant effects?	Yes			

**Discussion**

Option 1a focuses the majority of development in the south of the District around the main settlements. Option 1b and 1c propose less development in the main settlements of Bishop's Stortford, Hertford, Ware and Sawbridgeworth, instead directing this growth (approximately 3,000 dwellings) to the villages and rural areas (Option 1b) and two new settlements (Option 1c) respectively.

Option 1a proposes the majority of development in the south of the District directed towards the main settlements within the Green Belt. Option 2a proposes the same broad locations as Option 1a but proposes a slightly higher level of growth with additional sites proposed at Buntingford and to the north of Harlow.

Given the similarities in distribution between Options 1a and 2a there is unlikely to be a significant difference in terms of the nature and significance of effects against this topic. Compared to the other options, 2a proposes 1,110 additional dwellings to the north of Harlow, predominantly within Land North of the Stort/ South of Gilston. The Co-op Board commissioned consultants to assess the potential suitability of different site options around the periphery of Harlow. Sites A and E were identified as being suitable and are being proposed for the delivery of around 3,000 dwellings under all five of the spatial strategy options as Harlow Fringe. Option 2a is also proposing additional housing development at Sites B (City and Country), C (Land to the North of Pye Corner) and G (Land to the north of the Stort/south Gilston). The further assessment work found that these sites could potentially be suitable; however, development at Site B (City and Country) was identified as having the potential for an unacceptable impact on the character of the locally important Historic Park or Garden of Gilston Park. It also considered that development of Site C would have an unacceptable impact on the character of Gilston village. While development of Site A would also impact on the character of the heritage asset and village, the evidence suggests that appropriate landscaping can help to mitigate this. Site G was considered to be well related to the existing urban area of Harlow. The Green Belt Review (2015) found that Site G (falls within Parcel 53) performs a major role in checking unrestricted sprawl of large built up areas, and a paramount role in preventing neighbouring town from merging into one another in particular preventing the coalescence of Harlow and Sawbridgeworth.

Furthermore, Option 2a also proposes 400 dwellings towards Buntingford. Chapter 4 of the Supporting Document does not identify the landscape character as being particularly sensitive or a significant constraint to further development at the town. However, it is noted that there have been a number of speculative planning applications since the publication of the Supporting Document and the development of a further 400 dwellings could have cumulative negative effects on the landscape character and townscape. Given that the evidence does not identify any significant sensitivity in terms of landscape, it is considered that mitigation provided

through District Plan policies and available at the proposal level should ensure that any residual effects will not be of significance.



Option 1b proposes less development around the main settlements compared to Options 1a and 2a, directing it towards the villages and rural areas. At this stage the precise location of development is not known; however, for the purposes of the SA and identifying reasonable alternatives, it is assumed that development in the rural area under Option 1b would be small scale and located outside of the Green Belt. A more dispersed spatial strategy would result in greater number of small scale sites spread across the rural area. While small scale sites may not have significant impact on the landscape individually, there is the potential for them to have cumulative negative effects on the landscape and character of the District. Conversely, this option could also have a reduced negative effect on the landscape in the south of the District, particularly the character of Ware, Hertford and Sawbridgeworth.

Similar to Option 1b, 1c proposes less development in the Green Belt around the main settlements compared to Options 1a and 2a, directing it instead towards two new settlements near Little Hadham and Watton-at-Stone of approximately 1,500 dwellings each. It should be noted that the precise location of the new settlements at this stage are not known. Potential areas of search for new settlements were identified in Chapter 4 of the Council's Supporting Document and included Area 66: A120 corridor (near Little Hadham) and Area 68: A602 corridor (near Watton-at-Stone). The Supporting Document considered the potential impacts of a new settlement within these search areas and found the following<sup>91</sup>:

- Area 66 - The landscape is dotted with a large number of small settlements which could be detrimentally affected by the proximity of a new large settlement and the intensification that inevitably occurs. Various design tools could enable a new settlement to sit comfortably within a landscape. However, the landscape in this corridor is comparatively hilly, with many river valleys and ridgelines. This may hinder the ability of a new settlement to fit within the landscape with a low visual impact.
- Area 68 - A new settlement would be expected to provide for its own needs in terms of community facilities and various design tools could enable such a new settlement to sit comfortably within a landscape. However, the landscape in this corridor is dominated by the river valleys of the River Beane and the River Rib (both chalk streams), and their respective ridgelines. This may hinder the ability of a new settlement to fit within the landscape with a low visual impact.

**In conclusion:** All of the options have the potential for a significant negative effect on the landscape. Mitigation could help to reduce the significance of the residual effect but this will be dependent on a number of factors, including the design and layout of development as well as the precise location of development under Options 1b and 1c. While each of the options will have different effects at a local scale, it is difficult to differentiate between them at a District level. While it is not a landscape designation, it is recognised that Options 1a and 2a will result in the greatest loss of Green Belt land.

<sup>91</sup> NB. The Supporting Document considered the delivery 5,000 dwellings within the new settlement search areas.

Sustainability Topic: <u>Transport</u>				
	Option 1a	Option 1b	Option 1c	Option 2a
Rank		4	3	
Significant effects?	Yes			
Discussion	<p>Traffic congestion is a problem within town centres and at major junctions within the District. Evidence indicates that future development within the District has the potential for significant impacts on the existing road network unless appropriate mitigation is delivered.</p> <p>Options 1a and 2a direct more development towards the main settlements in the south and east of the District. While this has the potential to increase traffic in the town centres and major junctions it also ensures that new housing is directed towards areas with good accessibility to employment opportunities, services/facilities and sustainable transport modes, which will help to reduce the need to travel. Technical evidence suggests that there are suitable mitigation measures/ infrastructure improvements available to address the impacts arising from Option 1a.</p> <p>While Option 2a proposes a similar distribution of development to Option 1a, there are some key differences. The most significant of which is an additional 1,110 dwellings to the north of Harlow. Strategic transport modelling has been carried out to take account of all planned growth proposed by East Herts District and its three HMA partners. This modelling work indicates that the strategic road network is able to cope with the provision of approximately 14,000 - 17,000 new homes in the wider Harlow area, providing that certain mitigation measures are implemented. This includes an approximate figure of 3,000 homes within the Gilston Area, as well as development within Harlow itself, and on the edge of the town within Epping Forest District. In order to deliver this level of growth within the Plan period, the following schemes will be required:</p> <ul style="list-style-type: none"> <li>• Provision of a new Junction 7a on the M11;</li> <li>• Upgrade works to increase the capacity of Junctions 7 and 8 on the M11;</li> <li>• Widening of the existing River Stort road crossing;</li> <li>• Provision of a second River Stort road crossing; and</li> <li>• Upgrades to a number of existing junctions within Harlow.</li> </ul> <p>In order to provide in excess of 14,000 - 17,000 homes in the wider Harlow area, including a further 7,000 homes within the Gilston Area (beyond the initial 3,000 homes in the Plan period), further strategic mitigation measures will be required. The evidence at this stage therefore suggests that additional dwellings to the north of Harlow could not be accommodated unless additional mitigation/ transport infrastructure improvements are provided during the life of the Plan.</p> <p>Furthermore, Option 2a proposes the delivery of 400 dwellings in Buntingford. The Buntingford Transport Model Report, August 2015, was commissioned to inform the consideration of submitted planning applications and to inform the Plan-making process of the District Plan. The results of the scenario testing indicated that, in the most part, the network can accommodate the new developments given the network changes that have already been planned through the approval of the various planning applications. However, operational issues were identified at the following locations;</p> <ul style="list-style-type: none"> <li>• A10/London Road – southbound in the AM peak, and northbound in the PM peak</li> <li>• High Street/Baldock Road – northbound, principally in the AM peak</li> </ul> <p>The report proposes potential mitigation measures and highlights that junction improvements to address the operational issues identified at the High Street/Baldock Road junction are difficult to implement due to the surrounding streetscape in this location. However, the modelling</p>			

indicates that if a new roundabout on the A10 is provided as part of the development of 400 homes to the west of Buntingford, traffic levels within the town centre will be reduced which will have a positive impact on the local road network. It should be noted that further appraisal work in relation to the Supporting Document identifies that development in excess of the level already permitted in Buntingford cannot be viewed as being sustainable due to the likely increase in out-commuting from the town by car to access services, facilities and employment opportunities in nearby towns.

Option 1b proposes less development around the main settlements compared to Options 1a and 2a, directing it towards the villages and rural areas. This option performs poorly as it does it directs a greater proportion of development to areas with poor access to services/facilities, employment opportunities and sustainable transport modes. It is assumed that development will be dispersed and small scale so new housing would not be accompanied with any significant improvements to services/facilities, employment opportunities or sustainable transport modes to address this issue and help reduce the need to travel. The majority of residents will still travel to the surrounding main settlements to access facilities/services and employment opportunities and therefore increase traffic on the existing highway network and key junctions.

Option 1c proposes less development at the main settlements, instead proposing the delivery of two new settlements near Little Hadham and Watton-at-Stone of approximately 1,500 dwellings each. The Supporting Document identified that the infrastructure requirements and implications of developing a new settlement near to Little Hadham along the A120 corridor are prohibitively difficult compared to other locations in the District. There would be significant costs and engineering work required to both the road network. For the area near to Watton-at-Stone the Supporting Document identified that the area is potentially well-served in terms of road and rail access, subject to local improvements. It is acknowledged that the Supporting Document considered the delivery of a much higher number of dwellings for a new settlement in these areas (5,000 dwellings).

While the delivery of 1,500 dwellings would be accompanied by the provision of some community facilities/services and employment. It would be unlikely to be of sufficient scale to be self-contained and significantly reduce the need to travel for residents. The majority would still need to travel to the larger settlements in the south of District to access the greater range of facilities/services and employment opportunities on offer. As a result increased traffic along the A120, A602 and ultimately the A10 would be likely.

**In conclusion:** All of the options have the potential for significant effects through increased traffic on the existing road network. Technical evidence suggests that there are sufficient mitigation measures/infrastructure improvements available to address the impacts arising from Option 1a and the majority of development proposed under Option 2a. Despite the higher level of overall growth, the greatest concern with Options 2a is the increased number of dwellings directed to the north of Harlow. Evidence suggests that additional dwellings to the north of Harlow could not be accommodated unless additional mitigation/ transport infrastructure improvements are provided during the life of the Plan. There is uncertainty in terms of the impacts of Options 1b and 1c.

Overall, it is a challenge to differentiate between the options. Taking the evidence into account and mitigation available, it is considered that Options 1a and 2b perform better than Options 1b and 1c as they direct development to the areas where there is better access to services/facilities, employment opportunities and sustainable transport modes, which will help to reduce the need to travel. Options 1b and 1c are less likely to achieve this as development is directed towards the rural areas with poor accessibility and residents will still travel using the private vehicle to access the greater range of services/facilities and employment opportunities in the main settlements in the south of the District. Option 1c offers better opportunities to deliver improvements to highways and sustainable transport infrastructure compared to Option 1b given the scale of development proposed. Along with key highway infrastructure improvements, it will be vital to encourage a modal shift in the District through improved

sustainable transport modes and improved access to services/facilities and employment opportunities.

Sustainability Topic: <u>Water</u>				
	Option 1a	Option 1b	Option 1c	Option 2a
Rank	=	=	=	=
Significant effects?	No			
Discussion	<p>Water is a key issue given water scarcity in the sub-region, and an issue that will be exacerbated through the effects of climate change and 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. While Option 2a proposes a slightly higher overall level of growth it is unlikely to be of significance. 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 large sites; therefore Option 1b performs more poorly when compared to the others.</p>			

*Summary spatial strategy alternatives appraisal findings*

Topic	Rank of performance / categorisation of effects			
	Option 1a Preferred distribution	Option 1b More growth in rural area	Option 1c New settlements	Option 2a Preferred distribution & additional sites
Air quality	★1	4	3	2
Biodiversity & GI	=			
Climate Change	★1	4	3	★1
Community and Well-being	★1	4	3	★1
Economy and Employment	★1	4	3	★1
Historic Environment	★1	4	★1	3
Housing	2	3	3	★1
Land	★1	★1	★1	4
Landscape	=			
Transport	★1	4	3	★1
Water	=			

**Summary:**

Options 1a and 2a were found to perform better against topics relating to community and wellbeing, Economy and Employment and housing as they propose a more balanced distribution of housing across the District compared to Options 1b and 1c. They are more likely to meet the needs of communities in both urban and rural areas and support opportunities for new employment in key growth areas. Option 2a has the potential for enhanced positive effect against housing compared to the other options as it proposes a higher level of overall growth and will meet the estimated OAHN for the District.

Options 1a and 2a direct a greater proportion of development towards the main settlements where there is good accessibility to services/facilities, employment opportunities and sustainable transport modes. This will help to reduce the need to travel and help mitigate the potential impacts of increased traffic on the existing road network. Option 1b was considered less likely to achieve this as a greater proportion of development would be dispersed across the rural area where there is poor access to facilities/services and employment opportunities. Development in the rural area is also likely to be small scale and therefore less likely to result in significant improvements to facilities/services and transport infrastructure. Given the scale of the proposed new settlements under Option 1c they were considered unlikely to be self-contained. Ultimately, it was concluded that the residents of new development provided through Options 1b and 1c would still need to travel to the main settlements in order to access facilities/services and employment opportunities. This would have implications for the transport, climate change and air quality topics.

Topic	Rank of performance / categorisation of effects			
	Option 1a Preferred distribution	Option 1b More growth in rural area	Option 1c New settlements	Option 2a Preferred distribution & additional sites
	<p>All of the options have the potential for a significant residual negative effect on the land topic through the loss of agricultural land (particularly the best and most versatile) and greenfield land. At this stage it is not possible to predict which option would result in the greatest loss of best and most versatile agricultural land as the precise location of development under Options 1b and 1c is not specified.</p> <p>The appraisal found no significant differences between the options in relation to biodiversity, landscape and water. While all of the options were identified as having the potential for a significant negative effect on the landscape, mitigation could help to reduce the significance of the residual effect but this would be dependent on a number of factors, including the design and layout of development as well as the precise location of development under Options 1b and 1c. While each of the options will have different effects at a local scale, it is difficult to differentiate between them at a District level.</p> <p>Given uncertainties in relation to the location of growth under Option 1c, there is little to differentiate between Options 1a, 1c and 2a with respect to the historic environment. The slightly higher level of overall growth proposed under Option 2a through additional development in Buntingford and in the Gilston area, is not considered likely to result in negative effects of greater significance when compared to options 1a and 1b. If the new settlements proposed under Option 1c could be directed away from sensitive areas then this option has the potential to perform better than the others in relation to the historic environment but this uncertain at this stage. Option 1b performs poorly compared to the other options given the greater likelihood for cumulative negative effects as a result of the dispersed distribution of development in the rural area. This appraisal also highlighted this point under the landscape topic.</p>			