

Sustainability Appraisal of the Epping Forest District Draft Local Plan

Interim SA Report

September 2016

REVISION SCHEDULE					
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INTRODUCTION

1 BACKGROUND

- 1.1.1 AECOM is commissioned to lead on Sustainability Appraisal (SA) in support of the emerging Epping Forest District Local 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.¹

2 SA EXPLAINED

- 2.1.1 It is a requirement that SA is undertaken in-line with the procedures prescribed by the Environmental Assessment of Plans and Programmes Regulations 2004, which transposed into national law EU Directive 2001/42/EC on Strategic Environmental Assessment (SEA).²

- 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'.³ 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 in relation to '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 (and monitor) the plan?

2.1 This Interim SA Report⁴

- 2.1.1 This Interim SA Report is published alongside the Draft Local Plan, under Regulation 18 of the Local Planning Regulations. The legally required SA Report will be published subsequently, alongside the final draft ('Proposed Submission') version of the Local Plan, under Regulation 19 of the Local Planning Regulations.
- 2.1.2 Despite being an interim report, it is nonetheless helpful for this report to provide the information required of the SA Report. As such, **questions 1 - 3 are answered in turn**.
- 2.1.3 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 is the scope of the SA?

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

² The SA process incorporates the SEA process. Indeed, 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).

³ Regulation 12(2) of the Environmental Assessment of Plans and Programmes Regulations 2004

⁴ See Appendix I for further explanation of the regulatory basis for answering certain questions within the SA Report, and a 'checklist' explaining more precisely the regulatory basis for presenting certain information.

3 WHAT IS THE PLAN SEEKING TO ACHIEVE?

3.1 Overview

3.1.1 Once adopted, the Epping Forest District Local Plan will set out the proposed strategy for meeting the District's needs for the next 17 years, and will replace all of the surviving policies of the Local Plan 1998 and the 2006 Local Plan Alterations.

3.1.2 The plan will set out -

- the Council's vision and objectives for the District's development over the plan period;
- policies to ensure that development delivers high quality, sustainable homes, drive the quality of design and maintain our high quality built and natural environment;
- the future distribution for housing growth and requirements for affordable housing;
- policies to build a strong, competitive economy and the future distribution for new employment land space and thus new jobs;
- policies to maintain and enhance the vibrancy and vitality of our towns centres
- policies to support a sustainable transport and road infrastructure network; and
- proposals for delivery including an Infrastructure Delivery Plan (IDP) to demonstrate the infrastructure requirements necessary to support the site allocations and other proposals.

3.1.3 The Plan will shape how the District changes, and what is protected, by attracting and guiding investment in the District from the private sector, the Council itself, and other public bodies. Such investment will include new homes, new offices and other employment opportunities, colleges and schools, shops and leisure centres, GPs and clinics as well as improvements to existing physical and green infrastructure. It will guide decision making on planning applications to build or change the use of buildings and land. It will also provide the strategic policies that form the context for any neighbourhood plans produced in the District.

3.2 Plan objectives

3.2.1 The plan objectives are as follows -

- Environment and design
 - Protect the Metropolitan Green Belt within its revised boundary, and to encourage the re-use of previously developed land;
 - Protect Epping Forest and its setting, including the buffer lands;
 - Protect, and encourage appropriate management of other designated wildlife sites in the District, including the Lea Valley Special Protection Area, Sites of Special Scientific Interest, Local Nature Reserves and Local Wildlife Sites;
 - Protect and encourage the enhancement of heritage resources including Scheduled Monuments, statutorily and locally listed buildings, Registered Parks and Gardens, and conservation areas;
 - Ensure that the design, density, layout and landscaping of new development is sensitive to the character of the surrounding area, is of a high quality and is designed so as to reduce opportunities for crime and anti-social behaviour, and
 - Ensure new development takes full account of, and mitigates where necessary, potential problems from air pollution, land contamination and noise.
- Housing
 - Make provision for objectively assessed market and affordable housing needs within the District, to the extent that this is compatible with national planning policy;

- Ensure that new homes provide an appropriate mix of sizes, types, forms and tenures to meet local needs and create balanced, mixed and well integrated communities. This includes supported housing for elderly people and other groups with special needs; and
- Make provision for the identified needs of Travellers and Travelling Showpeople.
- Economic Development
 - Meet the objectively assessed economic and town centre needs in the District to the extent that this is compatible with national planning policy;
 - Diversify the District's two Town Centres (Epping and Loughton High Road) and four District Centres (Loughton Broadway, Ongar, Waltham Abbey and Buckhurst Hill) to support their future vitality and viability by encouraging other forms of town centre uses including residential, cultural, leisure, tourist and commercial activities appropriate to their roles;
 - Encourage the growth of local businesses and start-ups, through supporting home-working, provision of a range of flexible and affordable business facilities and the provision of high-speed broadband across the District;
 - Support the diversification of the agricultural economy, including the expansion of the glasshouse horticulture industry, subject to appropriate environmental considerations; and
 - Support the expansion of tourism in the District through the promotion of, and improving access to, a wide range of existing attractions in the District including Epping Forest, the Lee Valley Regional Park, the Royal Gunpowder Mills site, the historic towns, village centres and countryside, and through the provision of new visitor accommodation.
- Infrastructure and Movement
 - Identify and help fund and facilitate the timely delivery of necessary infrastructure and services through a planned and coordinated Infrastructure Delivery Plan (IDP) working with relevant authorities, agencies, developers and stakeholders;
 - Improve public transport, walking and cycling opportunities with the aim of promoting healthy lifestyles, reducing the effects of traffic congestion and improving accessibility to services and the countryside without requiring the use of the car; and
 - Provide enhanced access to green spaces and leisure, play and sports facilities and to make appropriate provision in new development.
- Climate Change and Flood Risk
 - Locate new development where there are the greatest opportunities for utilising public transport and cycling and walking instead of private car use;
 - Require development to meet high standards of energy efficiency and use of renewable energy;
 - Ensure new development makes full provision for recycling and, where appropriate, encourages the production of energy from waste; and
 - Ensure that new development is located away from areas at risk of flooding, and that such development will not increase flood risk elsewhere.

3.3 What is the Local Plan not seeking to achieve?

- 3.3.1 It is important to emphasise that the plan will be strategic in nature. Even the allocation of sites / establishment of site-specific policy through this plan should also be considered a strategic undertaking, i.e. a process that omits consideration of some detailed issues (in the knowledge that they can be addressed at the planning application stage). The strategic nature of the Local Plan is reflected in the scope of the SA.

4 WHAT IS 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 the Environment Agency, Historic England and Natural England.⁵ As such, these authorities were consulted on the SA scope in 2010. Since that time, the SA scope has evolved as new evidence has emerged; however, the scope remains fundamentally the same as that agreed through the dedicated scoping consultation in 2010.⁶

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 - grouped under eleven topic headings - established through SA scoping, i.e. in light of context/baseline review and consultation.
- 4.2.2 Taken together, the sustainability topics and objectives presented in Table 4.1 provide a methodological ‘framework’ for appraisal.

⁵ In accordance 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.’*

⁶ The SA Framework currently comprises 34 objectives, presented under 11 topic headings. Originally, in 2010, there were also a further 36 objectives presented under five area specific headings; however, the focus here is only on the thematic topic headings and the objectives assigned under each.

Table 4.1: Sustainability topics and objectives (i.e. the SA framework as broadly agreed in 2010)

Topics	Objectives
Air quality	<ul style="list-style-type: none"> • Avoid worsening of existing issues through minimising traffic congestion
Biodiversity and green infrastructure	<ul style="list-style-type: none"> • Avoid direct impacts to important biodiversity sites and linear features • Avoid more indirect impacts (e.g. through pollution or development preventing adaptation of biodiversity to climate change) • Carefully plan and implement multifunctional green infrastructure • Support initiatives that seek to achieve biodiversity benefits, including through targeted habitat creation and enhancement • Plan for biodiversity at a 'landscape scale'
Climate change (mitigation & adaptation)	<ul style="list-style-type: none"> • Lower greenhouse gas emissions • Increase the amount of renewable and decentralised energy generation • Drawing on the SFRA, take a pro-active approach to reducing flood risk and mitigate risk associated with new development where it occurs
Community and wellbeing	<ul style="list-style-type: none"> • Address pockets of deprivation • Meet the health and social needs of a growing and ageing population, including through ensuring good access to community infrastructure • Address all aspects of equality, where relevant to spatial planning • Address issues specific to rural communities • Provide facilities and infrastructure to support active living
Economy and employment	<ul style="list-style-type: none"> • Maintain a diverse economy including through supporting existing sectors (inc. rural) • Taking a long term view, support initiatives that capitalise on local strengths, including tourism potential (e.g. resulting from attractive towns and countryside) • Ensure local job creation in line with local housing growth • Maintain the key functions of local centres (also a 'community and wellbeing' issue) • Address deprivation issues through targeted economic growth
Historic environment	<ul style="list-style-type: none"> • Protect the district's heritage assets and their settings from inappropriate development • Ensure that development respects wider historic character
Housing	<ul style="list-style-type: none"> • Meet identified needs through providing new housing of the appropriate type (e.g. to reflect the ageing population and trend towards more single person households) • Increase the provision of affordable housing • Meet the needs of Travellers
Land and waste	<ul style="list-style-type: none"> • Protect Green Belt that meets the nationally established objectives • Make efficient use of land, accounting for land quality, and previously developed land • Support good waste management
Landscape	<ul style="list-style-type: none"> • Direct development away from the most sensitive landscapes and landscape features • Maintain and enhance characteristic landscapes and landscape features
Transport	<ul style="list-style-type: none"> • Bring about a modal shift in terms of commuting patterns, away from car dependency • Promote and support investment in sustainable transport infrastructure, including in rural areas where access to services and employment is an issue
Water	<ul style="list-style-type: none"> • Minimise water use to mitigate the worsening problem of 'serious water stress' • Maintain and improve water quality / water courses in line with legislative requirements • Direct development to areas with sewerage infrastructure capacity

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 2010, with two consultations having been held under Regulation 18 of the Local Planning Regulations prior to this current stage (also under Regulation 18), with one previous Interim SA Report 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 Local Plan that is currently the focus of appraisal (see Part 2, below) and is currently published for consultation.
- 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 Local 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. This information is important given regulatory requirements.⁷

What about other plan issues?

- 5.1.5 Whilst the plan will set policy in relation to a range of range of issues aside from spatial strategy, it is clear that setting spatial strategy is at the heart of the plan. It is the key issue to be addressed, and taken to be the primary objective of the plan. Hence it is considered reasonable⁸ that alternatives appraisal should focus on this matter.
- 5.1.6 Whilst the plan will set policy to address a range of other thematic issues (both strategic, e.g. in relation to “The Natural Environment, Landscape Character and Green Infrastructure”; and development management, e.g. “Heritage Assets”) these policy areas have not been a focus of alternatives appraisal, and are not discussed further within this part of the Report.

What about site options?

- 5.1.7 Appraisal of site options - i.e. the pool of sites available, deliverable and potentially suitable for allocation through the plan – has carried out by the Council, via a detailed ‘site selection’ process. The criteria employed as part of the site selection process are in-line with the SA framework (see Table 4.1), hence it can be said that the process integrated SA.
- 5.1.8 As such, whilst specific sites are discussed below, as part of the justification for developing alternative spatial strategies, site options appraisal is not given further explicit attention within this part of the Report. More information on the Council’s Site Selection process is available in the Report on site selection (September 2016) on the Local Plan evidence-base webpage.

Structure of this part of the report

- 5.1.9 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.

⁷ There is a requirement for the SA Report to present an appraisal of ‘reasonable alternatives’ and ‘an outline of the reasons for selecting the alternatives dealt with’. Whilst this report is not the SA Report, it is appropriate to present this information nonetheless for the benefit of stakeholders.

⁸ 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 Whilst Local Plan-making has been underway since 2010 - with AECOM commissioned as SA consultants since the outset – for the benefit of stakeholders it is appropriate to focus on the key steps taken in 2016 that led to the development of reasonable alternatives.
- 6.1.2 To minimise complexity, the intention here is not to report on steps taken prior to 2016, despite it being the case that all work undertaken over the course of the plan-making / SA process has fed-in and helped to set the context for alternatives development.⁹
- 6.1.3 Work completed in 2016 essentially involved examining -
- 1) Broad strategy for the sub-regional Housing Market Area (including sites on the Harlow fringe)
 - 2) Site options within Epping Forest District (non-Harlow fringe).
- 6.1.4 This Chapter considers (1) and (2) in turn, and then concludes by explaining how the evidence-base was drawn on to establish reasonable alternatives for appraisal / consultation.

6.2 Broad strategy for the Housing Market Area

Overview

- 6.2.1 A three step approach was taken, which ultimately resulted in the establishment of a preferred broad strategy for the West Essex and East Hertfordshire Housing Market Area (HMA), including a decision on the approach to growth around Harlow. This section considers each step in turn.

Step 1 - Establish understanding of housing and economic needs

- 6.2.2 Since 2010, three joint Strategic Housing Market Assessments (SHMAs) have been undertaken for the four authorities of the HMA - East Herts District Council, Epping Forest District Council, Harlow District Council and Uttlesford District Council - in order to establish Objectively Assessed Housing Need (OAHN).
- 6.2.3 The most recent SHMA was undertaken in 2015, identifying OAHN for the HMA to be 46,100 dwellings over the period 2011 - 2033, equivalent to an average of 2,095 dwellings per year. This includes an Objectively Assessed Need for Affordable Housing of 13,600 dwellings.¹⁰
- 6.2.4 The SHMA was also able to break-down OAHN for each authority, 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).

⁹ A key step was taken in 2012, when the Council consulted on 'Issues and Options' alongside an Interim SA Report. In relation to the spatial strategy, the consultation document presented - four alternative housing growth quantum figures; seven alternative broad spatial strategy alternatives; and spatial growth options (not necessarily alternatives) for each of each the main settlements. The Interim SA Report presented an appraisal of these options/alternatives (as well as alternatives for several other issues). Numerous issues/impacts were raised at this time, and taken into account. However, lessons learned from this stage in the process are now somewhat dated and, for that reason, not presented here. See <http://www.eppingforestdc.gov.uk/index.php/home/file-store/category/221-issues-and-options-consultation>

¹⁰ 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>

6.2.5 In addition, the SHMA highlighted that DCLG's 2012-based household projections showed the number of households in the HMA increasing from 175,189 to 224,827 over the 22-year period 2011-33. The SHMA explained 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.”*

6.2.6 In August 2016, Opinion Research Services (ORS) updated the OAHN (but without undertaking a full review of the SHMA) 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 (883 per year)
- **13,278 dwellings in Epping Forest (604 per year)**
- 7,824 dwellings in Harlow (356 per year)
- 14,080 dwellings in Uttlesford (640 per year).

N.B. Alongside the SHMA, the four authorities commissioned a study to consider the Objectively Assessed Economic Need of the Functional Economic Market Area (FEMA),¹¹ which considers a wider area than that of the HMA.¹² This was published in 2015 and provided an up-to-date assessment of jobs growth need in the FEMA for the period 2011-2033. The study identified a net jobs growth per year of 1,890 for the FEMA. For the West Essex and East Hertfordshire authority areas, this translated as the following ranges in jobs growth: 435 – 505 jobs per year in East Herts; 400 – 455 jobs per year in Epping Forest; 325 – 335 jobs per year in Harlow; 665 – 675 jobs per year in Uttlesford.

Step 2 - Develop and appraise spatial alternatives

6.2.7 The four councils resolved to explore options for meeting OAHN across the HMA through a Strategic Spatial Options Study. Specifically, the Councils resolved to -

- 1) Identify 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.
- 2) Examine each option in detail, informed by -
 - Sustainability Appraisal (SA), to examine significant effects in terms of a range of environmental and socio-economic objectives
 - Habitats Regulations Assessment (HRA) to determine implications, if any, for the integrity of the Epping Forest Special Area of Conservation and other relevant European wildlife sites
 - Transport modelling to explore implications in relation to traffic flows and the need for road upgrades or additional highways infrastructure
 - Strategic Site Assessment to assess the suitability of the potential sites in and around Harlow that could deliver new housing development.

6.2.8 Ultimately, the Study identified the spatial options presented in **Table 6.1**. These options (which are alternatives) were appraised through the technical studies, and discussed at a series of meetings of a 'Co-operation for Sustainable Development Member Board' ('Co-op Board'). More information can be found on the Council's Local Plan evidence-base webpage.

¹¹ 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>

¹² 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.

Table 6.1: Alternative broad strategies considered for the HMA (2016)

Option	Quantum	Distribution
A	46,100	Each authority meets its OAHN within its own boundaries (~14,150 at Harlow)
B	46,100	Less at Harlow (~10,500) and accelerated development on the A120
C	46,100	Less at Harlow (~10,500) and two new settlements in East Herts
D	46,100	Max at Harlow (~17,650) and reduced allocations in constrained areas elsewhere ¹³
E	49,638	Higher growth across the HMA (~17,650 at Harlow)
F	57,400	Maximum growth across the HMA (~ 20,985 at Harlow)

Step 3 - Identify the preferred strategy

6.2.9 The Co-op Board identified a strategy, for which a draft Memorandum of Understanding (MoU) between the four authorities has been prepared. This sets out a high level agreement with respect to the level and distribution of housing across the HMA.

6.2.10 The strategy proposed is presented in **Table 6.2**, with subsequent text providing a brief justification. The preferred strategy is a hybrid of Options A-F presented above.

Table 6.2: The preferred broad strategy 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
Total across the HMA	c. 51,100
...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

6.2.11 The preferred strategy was established 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).

¹³ Figures reduced across settlements in East Herts (Bishop's Stortford, Hertford, Sawbridgeworth and Ware) and Epping Forest to minimise Green Belt incursion; developments at East of Stevenage and East of Welwyn unchanged

- 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 findings and recommendation of the London Stansted Cambridge Corridor (LSCC) Growth Commission report, published in July 2016, stated that “*Broxbourne, Harlow and Stevenage have significant strategies and ambitions for growth and development. They can play an important role in supporting the Corridor’s tech and life sciences clusters. Current development and future plans will greatly improve the industrial, commercial and residential offer. These areas must be supported to provide the right types of development that enhance the quality of place for the Corridor’s knowledge-based industries and residents*” (our emphasis).¹⁴
- 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 for the West Essex and East Hertfordshire HMA 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 (AECOM, September 2016) 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). The Strategic Site Assessment is available on the Council’s Local Plan evidence-base webpage.

6.3 Housing site options¹⁵

Overview

- 6.3.1 Whilst the work discussed above resulted in an understanding of preferred strategic sites within Epping Forest District *around Harlow*, and resulted in an understanding of the preferred growth quantum to be delivered through other sites within Epping Forest District, there remained a need to develop a ‘bottom-up’ understanding of the site options available within the wider District to potentially deliver the remaining required growth quantum.
- 6.3.2 In order to examine non-strategic site options, the Council applied a bespoke site selection methodology working with consultants Arup, which did not seek to undermine or alter the conclusions of the HMA level work discussed above. The process involved:
- Stage 1 - Major policy constraints – identify sites which are subject to one or more of these constraints and therefore not considered to be suitable for development.
 - Stage 2 - Quantitative and qualitative assessment – undertake more detailed assessment of sites to understand their relative suitability for development using 33 criteria.¹⁶
 - Stage 3 - Identify candidate preferred sites – identify those sites which are considered suitable for development, and should be subject to further capacity and deliverability assessment.

¹⁴ London Stansted Cambridge Corridor Growth Consortium (2016). Findings and recommendation of the London Stansted Cambridge Growth Commission www.lscgcommission.org.uk/wp-content/uploads/2016/07/LSCC-Growth-Commission-Final-Report-full.pdf.

¹⁵ It should be noted that the Council also worked with Arup to develop and apply a site selection method for employment and traveller site options. The SA has focussed on the housing site options as ultimately there was an aim to define reasonable alternatives for the distribution of the identified housing requirement of ~11,400 homes.

¹⁶ To reiterate, the site assessment criteria were developed with the explicit purpose of reflecting the SA framework - see Table 4.1.

- Stage 4 - Deliverability – understand the availability and achievability of sites to enable a decision to be made about which sites to allocate and to ensure that the Council can demonstrate a sufficient housing trajectory over the Plan period.
- Stage 5 - Sustainability Appraisal/ Habitats Regulation Assessment – this report documents the findings of Stage 5 in respect of the Sustainability Appraisal.

6.3.3 There was also an initial stage, prior to Stage 1, that involved a filtering process to sift out sites that had been identified through various sources, including the Council's Strategic Land Availability Assessment (SLAA; March 2016)¹⁷, but were considered unsuitable for assessment through the site selection process. From the 'long list' of sites, 525 sites proposed for residential development progressed to Stage 1.

6.3.4 Stages 1 - 4 of the site selection process are discussed briefly below, with a particular focus on demonstrating the close ties between the criteria applied through the site selection process, and those issues and objectives that comprise the SA framework - see Table 4.1 above.

6.3.5 For further information on the Site Selection Methodology (SSM), including the reasons for sites being discounted through the process please refer to the Council's Report on Site Selection (September 2016) available on the Council's Local Plan evidence-base webpage.

Stage 1 - Major policy constraints

6.3.6 The purpose of Stage 1 was to identify any sites subject to major policy constraints identified in the NPPF, or by reference to local considerations, such that development of the candidate site would likely cause significant social, environmental or economic harm in accordance with paragraph 152 of the NPPF. Six major policy constraints were applied:

- Settlement Buffer Zones - sites were removed from further consideration where no part of the site was located within the settlement buffer zones (as identified in the Council's Settlement Hierarchy Technical Paper (2015)).
- Flood Risk Zone 3b - sites were removed from consideration where the site was entirely located within Flood Risk Zone 3b.
- International sites for biodiversity – sites were removed from consideration where the site was entirely located within internationally designated sites of importance for biodiversity (Special Area of Conservation, Special Protection Area or RAMSAR).
- County and Local Wildlife Sites – sites were removed from consideration where the site was entirely located within an Essex County Council owned or managed wildlife site or Council owned or managed Local Nature Reserve.
- Epping Forest and its Buffer Land – sites were removed from consideration where the site was entirely located within Epping Forest or Epping Forest Buffer Land.
- Health and Safety Executive Consultation Zones Inner Zone – sites were removed from consideration where the site was entirely located within the Health and Safety Executive Consultation Zones Inner Zone.

6.3.7 Each site was screened against the six major policy constraints using a Geographic Information Systems (GIS) database. Of the 525 sites promoted for residential development, which were assessed against the major policy constraints, 98 sites were sifted-out at Stage 1 - the vast majority (85 sites) due to their location outside a Settlement Buffer Zone.

¹⁷ More information on the SLAA can be found on the Council's Local Plan evidence-base webpage. Also, note that the long-list comprised a small number of sites that were submitted to the Council subsequent to the SLAA cut-off date but prior to a final cut-off date of 17th May 2016.

Stage 2 - Quantitative and qualitative assessment

- 6.3.8 The purpose of Stage 2 was to undertake more detailed quantitative and qualitative assessment of sites to identify the relative suitability of sites for residential development.
- 6.3.9 In order to do this, 32 assessment criteria were identified, grouped into the following categories:
- Impact on environmental and heritage designations and biodiversity;
 - Value to Green Belt;
 - Accessibility by public transport and to services;
 - Efficient use of land;
 - Landscape and townscape impact; and
 - Physical site constraints and site conditions.
- 6.3.10 Each of 427 sites subject to Stage 2 were assessed against the aforementioned criteria, using a combination of GIS analysis and planning judgement. Where a planning judgement was made an explanation was provided to justify the decision made, and a workshop was held on 7 June 2016 to moderate the results, i.e. to ensure a level of agreement on judgements and regularise any apparently significant inconsistencies. The output of Stage 2 was an assessment 'proforma' for each site.

Stage 3 - Identify candidate preferred sites

- 6.3.11 The purpose of Stage 3 was to identify candidate preferred sites. There was a focus on considering sites on a settlement-by-settlement basis, i.e. a focus on identifying the 'best' fit sites for a particular settlement rather than those sites which might be 'best' at the District scale. A step-wise approach was taken, with the first two steps undertaken through a meeting of the Local Plan Officer Working Group on 13/14 June 2016.
- Step 1: Based on the locations of the candidate sites within each settlement, a series of reasonable spatial options to accommodate growth were identified.¹⁸ Each spatial option was then assessed using planning judgement having regard to a range of factors including sustainable development principles set out in the NPPF, environmental constraints, local knowledge/initial officer evaluation of sites, feedback from the Community Choices consultation held in 2012 (which sought views on the suitability of broad locations for growth in and around settlements) and previous feedback from Members. For each spatial option a judgement was made about whether the option represented a more suitable or less suitable location for growth.
 - Step 2: Sites located within each 'more suitable' spatial option were subject to more detailed consideration. If sites were located in a spatial option judged to be 'less suitable' then they were not considered further. When undertaking the more detailed consideration of sites located within more suitable spatial options, regard was had to quantitative and qualitative analysis from Stage 2, and further planning judgements were made as appropriate (e.g. with more or less weight given to particular criteria), drawing upon local knowledge/initial officer evaluation of sites, feedback from the Community Choices consultation and previous Member feedback. Also, a 'check and challenge' workshop was held with Members on 18 June 2016. The outcome was a list of residential sites judged as potentially suitable for allocation.
 - Step 3: Sites judged to be potentially suitable for allocation were then categorised against a hierarchy prescribed in the SSM. The principle of the hierarchy is that a sequential approach is applied to identifying those sites which should be subject to further testing,

¹⁸ In some settlements only a single broad option was identified, while in other settlements the location of some sites was not considered to justify identification of a broad option.

e.g. sites on previously developed land within existing settlements preferred to Green Belt land, as far as possible.

- Step 4: At this stage it was recognised that the capacity of sites identified as potentially suitable for allocation (26,447 units) far exceeded the housing need figure to be met through site allocations away from Harlow (4,450 units plus reserve sites). Therefore a decision needed to be made about how many residential units should be taken forward for further testing and the distribution of those residential units across the District. To assist in identifying which sites should be subject to further testing, sites were grouped into the following categories:
 - Category 1 - sites located within flood zone 1 and on previously developed land within settlements.
 - Category 2 - sites located within flood zone 1 and comprising land which is urban open space (both designated and non-designated).
 - Category 3 - sites located within flood zone 1 and on land located on previously developed Green Belt land.
 - Category 4 - sites located within flood zone 1 and on land of least value to the Green Belt adjacent to the settlement.
 - Category 5 - sites located within flood zone 1 and on land of greater value to the Green Belt adjacent to the settlement.
 - Category 6 - sites located within flood zone 1 and on land of most value to the Green Belt adjacent to the settlement.
 - Category 7 – contains the remaining suitable sites, which includes: sites located within flood zone 1, which are Green Belt but not adjacent to the settlement; sites located within flood zone 1, which are not designated Green Belt but are designated agricultural land; and all other sites located in other flood zones (regardless of the type of land the site is located on).

6.3.12

It was determined that all sites located within categories 1 to 4 for all settlements should be taken forward for more detailed testing. However, in total these sites had a capacity of 6,322, which was not considered to provide a sufficient quantum given the additional capacity and deliverability assessment that would be undertaken. Also, some settlements had none or very few sites located within the first four categories and it was felt that more sites needed to be put forward for testing in these locations in order to support a distributed pattern of growth across the District and realisation of emerging settlement visions. Therefore, all sites located in Green Belt adjacent to the following settlements were identified for further testing, whether that was land of greater value or most value to the Green Belt:

- Chipping Ongar – to ensure sufficient sites were put forward for testing to support the settlement remaining self-sustaining, to ensure that sufficient homes are built to support existing services and to maximise the opportunities provided by the new secondary academy and capacity in the two primary schools.
- Epping – to provide sufficient choice of sites to enable the settlement to continue to grow at a rate that enables Epping to continue in its role as one of the main towns within the District.
- North Weald Bassett – to enable sites identified in to the north of the Settlement as the preferred direction of growth in the North Weald Bassett Masterplan to be subject to more detailed testing.
- Waltham Abbey – to ensure sufficient sites are considered to provide a sustainable level of housing which supports regeneration of the settlement and retention of town centre services.
- Theydon Bois – to enable sufficient sites to be considered to maximise existing sustainable transport links within the settlement.

- Lower Sheering, Roydon and Sheering – to enable sufficient sites to be put forward to meet local needs.

6.3.13 In total, this meant 152 sites (capacity 16,286 units) were taken forward for further testing. Subsequent work was undertaken to review development site capacities, particularly recognising that for larger sites using gross density can result in the capacity of the site being overstated once the need for internal roads and other infrastructure is taken into account. This resulted in a reduction in the number of homes which could be delivered by the 152 sites from 16,286 to 12,001.

Stage 4 Deliverability

6.3.14 The purpose of Stage 4 was to consider the deliverability of the candidate Preferred Sites to inform the housing trajectory for the Draft Local Plan. Stages 1, 2 and 3 considered the suitability of the site and, therefore, this stage focused on whether a site was deliverable, specifically:

- Whether the site is available now or will become available during the Local Plan period
- Whether development will be achievable within the appropriate timescales.

6.3.15 A series of questions were posed to land promoters/developers through a survey. The responses to this survey along with other technical information were used to undertake assessment of the following criteria:

- Availability: site ownership, existing uses, on-site restrictions and site availability.
- Achievability: site viability, on-site physical and infrastructure constraints, impact on capacity of primary and secondary schools, access to open space, access to health facilities and impact on mineral deposits.
- Cumulative achievability: cumulative loss of open space, cumulative impact on primary schools, cumulative impact on secondary schools, cumulative impact on green infrastructure network, cumulative impact on Sewage Treatment Works capacity and cumulative impact on Central Line capacity.
- Overview assessment of constraints: insurmountable constraints.

6.3.16 The availability and achievability assessment provided a more nuanced picture of the appropriateness of sites for allocation. Availability of sites in particular was an important issue given that the landownership information had not been identified for all sites assessed through the SLAA and, even where landownership details were known, the timescale for the site being brought forward for development was not.

6.3.17 Ultimately, from the 152 sites subject to the deliverability assessment this work showed that some 9,000 homes could be delivered on sites where the availability has been confirmed with the remaining 3,000 homes located on windfall sites, sites where the landowner is known but timescale for bringing forward development is not, or where the landowner has confirmed the site is not available for development within the Plan period.

Establishing a preferred strategy

6.3.18 Based on the findings from Stage 4, a preferred distribution for the allocation of (non-Harlow) sites to meet the housing requirement was identified at a Local Plan Officer Working Group, which was subject to a 'check and challenge' session with Members on 6 August 2016.

6.3.19 The Draft Local Plan includes a proposed allocation of 88 sites and takes into account an allowance for circa 225 homes on part of the North Weald Airfield site which, in total, will support delivery of approximately 7,200 homes across the District, in addition to the 3,900 homes proposed for allocation around Harlow. The figure of 7,200 is in excess of the 4,450 homes needed to meet the identified housing requirement for the District, and ensures a sufficient number of sites should the status of any of the sites identified for allocation change

during the Draft Local Plan consultation or up to examination of the Local Plan. The preferred sites are dispersed across the District, and are broadly in accordance with the Community Choices consultation feedback. The preferred strategy involves prioritising development within settlements, and seeks to minimise release of land from the Green Belt.

- 6.3.20 **Table 6.3** identifies the approximate number of homes in each settlement under the preferred approach, and how these figures align with the settlement visions.

Table 6.3: The preferred strategy for 'non Harlow' site allocations

Settlement	Number of homes	Justification for number of homes
Buckhurst Hill	90	Aspiration to continue to support successful retail and professional services employment while retaining its local feel.
Chigwell	430	Aspiration to support small scale development to meet a wide variety of local housing needs, while retaining and enhancing the character of the distinctive communities which make up the settlement.
Chipping Ongar	600	Aspiration to remain self-sustaining, to ensure that sufficient homes are built to support existing services and to maximise the opportunities provided by the new secondary academy and capacity in the two primary schools.
Coopersale	50	Aspiration to provide homes which help to meet local needs.
Epping	1,640	Aspiration to support an appropriate level of growth to continue in its role as one of the main towns within the District.
Fyfield	90	Aspiration to provide homes which help to meet local needs.
High Ongar	10	Aspiration to provide homes which help to meet local needs.
Loughton/ Debden	1,190	Aspiration to be a major town, providing a hub for retail, education and employment in the District, supported by appropriate residential expansion to continue to support two successful retail centres, and an additional out-of-centre retail park at Langston Road.
Lower Sheering	30	Aspiration to provide homes which help to meet local needs.
Nazeing	220	Aspiration to function as a small centre which is able to support the needs of the local community.
North Weald Bassett	1,580	Aspirations set out in the North Weald Bassett Masterplanning Study, which identifies the potential for the village to accommodate between 500 and 1,600 homes.
Roydon	40	Aspiration to maintain its existing character and local feel.
Sheering	120	Aspiration to provide homes which help to meet local needs.
Stapleford Abbots	10	Aspiration to provide homes which help to meet local needs.
Theydon Bois	360	Aspiration to maintain its local feel and character, and provide a mix of housing, alongside retail, leisure and social infrastructure to support its residents.
Thornwood	130	Aspiration to provide homes which help to meet local needs and support the settlement becoming more self-sustaining.
Waltham Abbey	800	Aspiration to provide a sustainable level of housing which supports regeneration of the settlement and retention of town centre services.

6.4 Establishing the reasonable alternatives

- 6.4.1 It was recognised that there was a need for an objective review of the preferred strategy, informed by the site selection process and the appraisal of reasonable alternatives.
- 6.4.2 A series of strategic (as opposed to site-specific) alternatives were developed, varying in terms of distribution only (recognising that the total quantum has been determined at the sub regional, HMA scale) - see **Table 6.4**.

Table 6.4: The reasonable alternatives

Option		Quantum	Distribution
1	The preferred option	Meet the housing requirement of ~11,400 homes	The preferred strategy*
2	Lower growth at North Weald Bassett		Lower growth at North Weald Bassett, and consequentially higher growth elsewhere (dispersed)
3	Higher growth at North Weald Bassett		Higher growth at North Weald Bassett, and consequentially lower growth elsewhere (dispersed)
4	Lower growth at urban greenspaces		Lower growth at urban greenspace sites, and consequentially higher growth elsewhere (dispersed)
5	Higher growth along the Central Line		Higher growth at settlements served by the Central Line, and consequentially lower growth elsewhere (dispersed)

* Whilst the preferred sites proposed for allocation from the site selection process involves sufficient allocations to provide for a quantum of growth above 11,400 homes, there is an expectation that a number of these allocations will change subsequent to the forthcoming consultation such that the Local Plan ultimately provides for the housing need (~11,400) over the plan period.

- 6.4.3 The above options were determined to be the 'reasonable' alternatives in that their appraisal would enable and facilitate discussion of important issues/opportunities for the District. Whilst it was recognised that there are other options that could potentially feature, there is a need to limit the number of alternatives, with a view to facilitating engagement.
- 6.4.4 This Interim SA Report will be published for consultation, together with the Draft Local Plan.

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 III**.

7.2 Summary alternatives appraisal findings

7.2.1 **Table 7.1** presents summary appraisal findings in relation to the five alternatives introduced above. Detailed appraisal methodology is explained in Appendix III, 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). A star is used to highlight the option or options that are preferred from an SA perspective.

Table 7.1: Summary spatial strategy alternatives appraisal findings

Summary findings and conclusions					
Topic	Categorisation and rank				
	Option 1 The preferred option	Option 2 Lower growth at North Weald Bassett	Option 3 Higher growth at North Weald Bassett	Option 4 Lower growth at urban greenspaces	Option 5 Higher growth along the Central Line
Air quality	=	=	=	=	=
Biodiversity and green infrastructure	★1	★1	★1	★1	5
Climate change (mitigation and adaptation)	★1	★1	★1	★1	5
Community and wellbeing	=	=	=	=	=
Economy and employment	=	=	=	=	=
Historic environment	=	=	=	=	=
Housing	=	=	=	=	=
Land and waste	2	3	3	5	★1
Landscape	=	=	=	=	=
Transport	=	=	=	=	=
Water	=	=	=	=	=

All of the options are found to have the potential for a significant long-term positive effect in relation to communities and wellbeing as well as housing. The appraisal also finds all to have the potential for a significant negative effect in terms loss of agricultural and greenfield land.

Option 1 involves a distribution as per the preferred strategy to emerge from the site selection work (see Section 6.3 of this report). This is a tailored approach that performs broadly well in terms of a range of sustainability objectives. It seeks to ensure that growth is well distributed between settlements, and also makes efficient use of land / minimises the loss of Green Belt land. However, it is also associated with certain draw-backs. The 'pros and cons' of the preferred approach are highlighted through the discussion of the alternatives presented below.

Option 2 proposes a lower level of growth at North Weald Bassett. It would result in a higher level of growth in other areas of the District; however, the precise level of this displaced growth and its location is not known at this stage. This option -

- is likely to have a reduced positive effect for the communities in and around North Weald Bassett

Topic	Categorisation and rank				
	Option 1 The preferred option	Option 2 Lower growth at North Weald Bassett	Option 3 Higher growth at North Weald Bassett	Option 4 Lower growth at urban greenspaces	Option 5 Higher growth along the Central Line
	<p>compared to the other options given the lower level of housing proposed and associated improvements in terms of access to public transport, employment and services/facilities;</p> <ul style="list-style-type: none"> offers opportunities to direct displaced growth towards areas that could potentially have better access to public transport, employment and services/facilities but this would not help to address existing sustainability issues or maximise opportunities for improvement within North Weald Bassett. <p>Option 3 proposes a higher level of growth at North Weald Bassett. It would result in a lower level of growth in other areas of the District; however, the level of growth and the precise areas it would be diverted from are not known at this stage. This option -</p> <ul style="list-style-type: none"> is likely to have an enhanced positive effect compared to other options for communities in North Weald Bassett as a greater level of housing development is proposed; and is more likely to take advantage of and maximise identified opportunities as well as better address existing issues for the town in relation to poor access to public transport and services/ facilities. <p>Option 4 proposes less development on greenspaces within the urban areas. This option -</p> <ul style="list-style-type: none"> could result in a need to divert growth to locations on the edge of Loughton (in order to avoid unreasonably low growth at the town) that are sensitive in terms of flood risk and/or biodiversity (e.g. given the River Roding) and/or landscape (e.g. given the important Loughton / Theydon Bois gap); performs poorly compared to the other options in terms of the efficient use of land as there will be lower growth within the urban areas, which would result in a higher level of growth and therefore loss of greenfield sites and agricultural land on the edge of settlements; could help to ensure good access to open/green space; however, this is uncertain given evidence to suggest that the open spaces in question are under used, and that sufficient capacity would remain. <p>Option 5 proposes a higher level of growth in and around the settlements in the south of the District that are served by the Central Line. This option -</p> <ul style="list-style-type: none"> is less likely to take advantage of and maximise opportunities for development in areas and settlements away from the Central Line, e.g. at Chipping Ongar and Waltham Abbey, where there are particular growth related opportunities; directs growth to areas with good access to public transport, employment and services/facilities; performs poorly compared to other options against biodiversity as it proposes a higher level of growth in close proximity to sensitive and designated nature conservation sites, leading to the prediction of a 'significant negative effect'; directs growth away from the best and most versatile Grade 2 agricultural land situated in the northern areas of the District; and is more likely to result in the loss of Green Belt land in the south of the District, which provides gaps that are important in terms of maintaining separation between settlements. 				

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 strategy in-light of alternatives appraisal.

8.2 The Council's outline reasons

8.2.1 The Council's justification for the preferred approach is set out at paragraph 3.54 of the Draft Local Plan, as reflected in Draft Local Plan Policy SP 2. That justification can be summarised as follows:

The preferred option - Option 1 - involves making provision for 11,400 homes over the plan period through a distribution strategy that emerged subsequent to work with neighbouring authorities (see discussion in Section 6.2) and a detailed site selection process (see discussion in Section 6.3), and reflects the following broad principles -

- Allocating sites around Harlow in accordance with the vision of the London Stansted Cambridge Corridor Core Area;
- Maximising opportunities for development on previously developed land within the existing settlements of the District
- Utilising open space within settlements where such selection would not adversely affect open space provision within the settlement and make the best use of existing land without compromising local character;
- Utilising previously developed land within the Green Belt;
- Allowing for a limited release of Green Belt land to provide for housing on the edge of settlements to distribute housing across the District, in keeping with Green Belt policy that exceptional circumstances must be demonstrated for Green Belt release; and
- Enabling small scale sites in smaller rural communities to come forward where there is a clear local need which supports the social and economic well-being of that community.

The appraisal summarised within Table 7.1 above considers the merits of the strategy relative to four alternative strategies that would involve a markedly different distribution, and in doing so raises a number of important points. Notably -

- In relation to North Weald Bassett the appraisal highlights that a higher growth option has some merit in terms of certain objectives (e.g. comprehensive development could support a more sustainable community) and that the lower growth option would not facilitate the provision of the required infrastructure and maximise opportunities for improvement. The Council considers therefore on balance that the preferred option (something of a middle-ground approach) represents sustainable development.
- In relation to urban open space development, the appraisal highlights that there are quite strong arguments for retention of the provision, but that in the absence of this strategy there would be consequential need to allocate more sensitive Green Belt sites which gives rise to a range of sustainability concerns. In light of this discussion, the Council feels that the preferred option (support development of selected urban open spaces, ensuring no adverse effect to the overall provision in the settlements concerned) represents sustainable development.
- In relation to transport accessibility, the appraisal highlights that there are quite strong arguments for maximising growth along the main transport corridor, but equally highlights that were this strategy to be followed then there would be a risk of developing sites that are sensitive from an environmental perspective, and there would be a risk of growth related opportunities being missed at the rural towns and villages. It could also exacerbate existing capacity issues for the Central Line outside the District. The Council's own analysis for the Draft IDP and advice from Transport for London (TfL) suggests that there is sufficient capacity on the Central Line within the District. Epping Forest District Council are working

with TfL as well as Redbridge Borough and Waltham Forest Borough Councils to consider and understand the effects of growth further down the Central Line. In light of this discussion, the Council feels that the preferred option (limit the focus along the transport corridor / ensure a degree of dispersal) on balance represents sustainable development.

PART 2: WHAT ARE SA FINDINGS AT THIS CURRENT STAGE?

9 INTRODUCTION (TO PART 2)

9.1.1 The aim of this chapter is to present an appraisal of the Draft Local Plan, as currently published under Regulation 18 of the Local Planning Regulations.

9.2 Methodology

9.2.1 The appraisal identifies and evaluates 'likely significant effects' of the plan on the baseline, drawing on the sustainability topics/objectives identified through scoping (see Table 4.1) as a methodological framework. In total, there are twelve topics relating to:

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

9.2.2 Every effort is made to predict effects accurately; however, this is inherently challenging given the high level nature of the policies under consideration, and understanding of the baseline (now and in the future under a 'no plan' scenario) that is inevitably limited. Given uncertainties there is a need to make assumptions, e.g. in relation to plan implementation and aspects of the baseline that might be impacted. Assumptions are made cautiously, and explained within the text (with the aim to strike a balance between comprehensiveness and conciseness/accessibility). In many instances, given reasonable assumptions, it is not possible to predict 'significant effects', but it is nonetheless possible and helpful to comment on merits (or otherwise) of the Draft Plan in more general terms.

9.2.3 Finally, it is important to note that effects are predicted taking account of the effect characteristics and 'significance criteria' presented within Schedules 1 and 2 of the SEA Regulations.¹⁹ 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. Explicit reference is made within the appraisal as appropriate (given the need to balance the desire of systematic appraisal with a desire to ensure conciseness/accessibility).

Adding structure to the appraisal

9.2.4 Whilst the aim is essentially to present an appraisal of 'the plan' under each of the SA objective headings,²⁰ it is appropriate to also give stand-alone consideration to elements of the Draft Plan. As such, within the appraisal narratives below, sub-headings are used to ensure that stand-alone consideration is given to distinct elements of the Draft Plan, before the discussion under a final sub-heading concludes on the Draft Plan as a whole.

9.2.5 Within these narratives, specific policies are referred to only as necessary (i.e. it is not the case that systematic consideration is given to the merits of every plan policy in terms of every sustainability topic/objective).

¹⁹ Environmental Assessment of Plans and Programmes Regulations 2004

²⁰ Regulations require simply an appraisal of 'the plan'.

10 APPRAISAL OF THE DRAFT PLAN

10.1 Introduction

10.1.1 As introduced above, the aim of this chapter is to present an appraisal of the Draft Plan under the SA framework.

10.2 Air quality

Commentary on the spatial strategy

10.2.1 There is currently one Air Quality Management Area (AQMA), declared for Nitrogen Dioxide on High Road, Epping (Bell Common). Epping High Street had an AQMA that was revoked in 2011, and the Essex Air Quality Consortium suggest that there may be a need to declare further AQMAs in Epping and Loughton, for Nitrogen Dioxide arising from stop-start traffic, depending on whether or not improvements in cleaner vehicle technology deliver the desired results.

10.2.2 The preferred spatial strategy involves a dispersed approach with a focus of development on the fringes of Harlow. Traffic modelling and air quality impact assessment was undertaken to support the assessment of the different HMA options as part of the Strategic Spatial Options Study (please refer to Section 6 for further information). Options A to E were found to have similar effects on traffic increases within the areas declared as AQMAs, which includes the High Road AQMA within Epping Forest District. Potential effects on the Lee Valley SPA/Ramsar and Epping Forest SAC were considered through the air quality assessment process undertaken with respect to the HMA strategic spatial options. This considered atmospheric pollution and concluded that none of the HMA options would result in significant adverse effects on any European sites.

10.2.3 Development in the south of the District has good access to public transport and services/facilities and therefore good potential to support modal shift away from car dependency; however, there are existing problems of traffic congestion (in some cases with air quality implications) that could be worsened. There is also a focus of growth at North Weald Bassett, which gives rise to some concerns from a traffic / air quality perspective, given existing poor public transport connectivity (albeit there is potential for enhancement) and a strong likelihood of increased traffic passing through Epping. There is also a relatively high growth strategy proposed for Epping itself.

10.2.4 Harlow itself provides a good opportunity to focus development in a sustainable location, but also to use that critical mass of new development to deliver significant improvements to the transport network. The Council has been working with neighbouring planning authorities, Essex and Hertfordshire County Councils and Highways England to identify the necessary infrastructure to support new growth in this location. A draft Memorandum of Understanding has been prepared, which identifies a number of new infrastructure interventions that will be necessary. The most notable of these is a proposed new motorway junction on the M11 (Junction 7A).

Commentary on other policies

10.2.5 There are a number of draft policies that are likely to help to mitigate the potential negative effects arising as a result of development proposed through the spatial strategy.

10.2.6 Draft Policy T 1 (Sustainable Transport Choices) seeks to manage traffic congestion as well as improve access to sustainable transport modes. Development should seek to minimise the need to travel, promote opportunities for sustainable transport modes, improve accessibility to services and support the transition to a low carbon future. Furthermore, the policy requires that any development proposal likely to generate significant movements is supported by a Transport Statement or Transport Assessment; and a Travel Plan will normally be required.

10.2.7 In order to encourage the use of low emission vehicles to support improvements in air quality,

Draft Policy T 1 commits to working in partnership with Essex County Council to achieve the appropriate provision of electric vehicle charging points, particularly on strategic housing and large scale commercial / retail developments, with further work to focus on parking standards.

- 10.2.8 Draft Policy DM 3 (Epping Forest SAC and the Lee Valley SPA) expects all relevant development proposals to assist in the conservation and enhancement of the Lee Valley SPA and Epping Forest SAC.
- 10.2.9 Draft Policy DM 21 (Local environmental impacts, pollution and land contamination) requires that the local environmental impacts of all development proposals do not lead to detrimental impacts. The Council will: resist development that leads to unacceptable local environmental impacts, including, but not limited to, air pollution; require that activities likely to generate pollution are located away from sensitive uses and receptors where possible; and require development to mitigate and reduce to a minimum any adverse local environmental impacts and activities that may have wider cumulative effects.
- 10.2.10 Draft Policy D 1 (Delivery of Infrastructure) seeks to ensure that new development is served and supported by appropriate infrastructure and services identified through the Infrastructure Delivery Plan, which includes necessary transport infrastructure. It is also noted that the site allocation/place policies require supporting infrastructure to be delivered at a rate and scale to meet the needs that arise from the proposed development, in accordance with the Infrastructure Delivery Plan. Draft Policy T 2 (Safeguarding of routes and facilities) protects the land required for proposed transport schemes from 'sterilising' development.

Appraisal of the draft plan as a whole

- 10.2.11 There are existing congestion and air quality issues in the south of the District and focusing development there could exacerbate this; however, on the other hand, settlements in the south of the District have good access to public transport (in particular the Central Line), employment and services/facilities. Growth at North Weald Bassett and Epping also gives rise to some concerns, given the District's only designated Air Quality Management Area (AQMA) on the southern edge of Epping; however, the findings of work to examine strategic growth options at the HMA scale serves to allay concerns (albeit this work was focused on impacts to the condition of Epping Forest SAC, as opposed to the matter of worsening air quality within the AQMA). On balance, it is appropriate to conclude **neutral effects** at this stage, i.e. it is not possible to conclude positive or negative effects on the baseline; however, there is some uncertainty associated with this judgement. More work will need to be completed to examine the number and direction of car movements that will result (given potential for enhancement to public transport and walking/cycling infrastructure), and the potential for traffic congestion (given the potential for road/junction improvements).

10.3 Biodiversity and green infrastructure

Commentary on the spatial strategy

- 10.3.1 Important biodiversity designations are predominantly located in the south and south west of the District and include the Lee Valley and Epping Forest nature conservation designations (SAC, SPA, Ramsar, SSSI).
- 10.3.2 Potential effects on Epping Forest SAC and the Lee Valley SPA/Ramsar were considered through the HRA process undertaken with respect to the HMA strategic spatial options. This considered: disturbance from recreational activities and urbanisation; atmospheric pollution; water abstraction; and water quality.
- 10.3.3 In terms of recreational pressures, whilst significant effects from the HMA options considered were not anticipated on the European sites, it was recommended that all new development should deliver greenspace in-line with the Natural England Alternative Natural Greenspace (ANG) standard to ensure self-sufficiency. In relation to air quality, it was considered that the options considered would not lead to a likely significant effect upon the European sites either alone or in combination with other projects or plans. In relation to water abstraction, it was

concluded that delivery of the options would not result in adverse effects on the Lee Valley SPA/Ramsar site through excessive water drawdown, either alone or in combination with other plans and projects. It was also evaluated that there would not be a water quality effect from the options on Lee Valley SPA/Ramsar site either alone or in combination with other projects and plans.

- 10.3.4 The preferred spatial strategy involves a dispersed approach with a focus of development on the fringes of Harlow. There is development proposed in the south of the District near to the important biodiversity designations referred to above; however, preferred sites to emerge are those that tend to be least sensitive from a biodiversity perspective. There remains potential for in-combination effects (notably as a result of recreational pressure and air pollution resulting from traffic) but, broadly, the preferred strategy helps to allay the concerns that inevitably result from housing growth. It should be noted that emerging preferred sites and policies have been screened through the HRA process for the Epping Forest District Local Plan. This work has informed the Council's site selection process and therefore the preferred spatial strategy. Further HRA work will be carried out in due course, including Appropriate Assessment, and the findings will be presented in a HRA Report that will accompany the Regulation 19 Plan.
- 10.3.5 A focus at North Weald Bassett is supported (although there would be the potential for negative effects on local biodiversity, including a number of Local Wildlife Sites); as is a focus on growth at urban open spaces, which are not thought to have significant biodiversity value (at the District-scale / relative to the other assets that exist). At Loughton it is noted that lower growth at urban open spaces could necessitate reconsideration of sensitive urban edge sites, potentially with implications for Epping Forest SAC or the Roding Meadows SSSI.

Commentary on other policies

- 10.3.6 There are a number of draft policies that are likely to help to mitigate the potential negative effects arising as a result of development proposed through the spatial strategy.
- 10.3.7 Draft Policy SP 5 (The Natural Environment, Landscape Character and Green Infrastructure) seeks to protect the natural environment, enhance its quality and extend access to it. It aims to create a comprehensive network of green corridors and places, connecting and enriching biodiversity through habitat improvement and protection at all scales. Furthermore, the policy expects all development proposals, where appropriate, to contribute towards the delivery of new green infrastructure.
- 10.3.8 Draft Policy DM 1 (Habitat protection and improving biodiversity) seeks all development to deliver a net biodiversity gain and integrate biodiversity through their design and layout, including through the provision of connections between networks. Development proposals must protect and enhance natural habitats and areas of biodiversity, and should not negatively impact upon areas of international or national designation.
- 10.3.9 Draft Policy DM 3 (Epping Forest SAC and the Lee Valley SPA) expects all relevant development proposals to assist in the conservation and enhancement of the Epping Forest SAC and the Lee Valley SPA. Where appropriate, development will be expected to enhance the green links between these two sites and ensure access to new and existing green spaces across the District. Also, to mitigate potential adverse impacts on the Epping Forest SAC the Council will ensure the provision of Suitable Accessible Natural Green Spaces and Corridors through Draft Policy DM 4 (Suitable Accessible Natural Green Space and Corridors).
- 10.3.10 Draft Policy DM 5 (Green Infrastructure Design of Development) ensures that development proposals demonstrate that they have been designed to retain and, where possible, enhance existing green infrastructure (GI) and incorporate appropriate provision of green assets or space. Where appropriate development proposals will also be expected to provide open space through Draft Policy DM 6 (Designated and undesignated open spaces).
- 10.3.11 Draft Policy DM 9 (High quality design) requires development proposals to demonstrate how the landscaping and planting are integrated into the development as a whole and that it

responds to the biodiversity of the site and its context.

- 10.3.12 Draft Policy DM 17 (Protecting and enhancing watercourses and flood defences) ensures that the Council will resist proposals that would adversely affect the natural functioning of main rivers and ordinary watercourses, including through culverting. Development on or adjacent to a watercourse must not result in the deterioration of the quality of that watercourse and must not impact on the stability of the banks of the watercourse or river.
- 10.3.13 Draft Policy DM 21 (Local environmental impacts, pollution and land contamination) requires that the local environmental impacts of all development proposals do not lead to detrimental impacts. These potential impacts can include, but are not limited to, air and water (surface and groundwater) pollution, dust, noise, vibration, light pollution, odours, and fumes as well as land contamination.

Appraisal of the draft plan as a whole

- 10.3.14 Whilst housing growth gives rise to a concern that there will be impacts to important natural environment assets locally and, more generally, an impact to biodiversity at the District scale, the preferred spatial strategy serves to allay concerns, in particular given avoidance of sensitive settlement edge locations in the south of the district. However, there remains some potential for sites in combination to have an adverse impact, and there will be a need for further work to examine potential impacts (and opportunities) subsequent to the current consultation. There will be the potential to develop site-specific policies that reflect the nature conservation and green infrastructure priorities locally and ensure that these are reflected in the District-wide development management policies (although it is the case that they are already demonstrably evidence-based and robust). On balance, it is appropriate to conclude **neutral effects** at this stage, i.e. it is not possible to conclude positive or negative effects on the baseline.

10.4 Climate change (mitigation and adaptation)

Commentary on the spatial strategy

- 10.4.1 With regards to climate change mitigation, key issues relate to A) the need to capitalise upon opportunities to design-in low carbon infrastructure, and therefore reduce per capita related CO₂ emissions; and B) the need to reduce car dependency and distance travelled by private car, and therefore per capita transport related CO₂ emissions. In relation to the latter point, the Council's Carbon Reduction and Renewable Energy Assessment (2013) concluded that renewable and low carbon electricity and heat generation schemes of all kinds can be feasible and viable on larger schemes in the District.
- 10.4.2 With regards to climate change adaptation, a key issue is flood risk. The Strategic Flood Risk Assessment (SFRA) Level 1 Update 2015 identifies that the forms of flooding experienced in the District are: 'fluvial' from rivers and other watercourses; 'pluvial' from rain i.e. surface water flooding resulting from precipitation; and 'groundwater' flooding which is the emergence of water from the ground away from river channels. The corridors of the River Lee and River Roding, including their main tributaries, the Cobbins and Cripsey Brooks, contain the majority of the flood risk zones in the District – i.e. areas at risk from flooding by rivers; and the rapid onset, flash flooding of the smaller watercourse system is identified as an issue.
- 10.4.3 In relation to reducing CO₂ emissions from transport, the preferred spatial strategy has some merit as, while development is dispersed, there is a focus in areas of the District where there is good access to public transport and services/facilities, such as Harlow and the south of the District, and therefore good potential to support modal shift away from car use. However, it should be noted that North Weald Bassett is less well linked (albeit there is potential for enhancement) and Chipping Ongar is a rural settlement where car dependency is likely to be entrenched and the need to travel long distances by car is anticipated.
- 10.4.4 The preferred spatial strategy, in relation to reducing CO₂ emissions from the built environment potentially has merit; however, there is an element of uncertainty at this stage

until further project level work is carried out through the development management process. The largest proposed site is at North Weald Bassett, which at 590 dwellings would potentially give rise to the opportunity to deliver a Combined Heat and Power (CHP) scheme (particularly the case given that there is a proposed employment allocation adjacent); and there are also a number of adjacent allocations elsewhere in North Weald Bassett that could potentially be delivered in a coordinated fashion, although this can prove difficult in practice.

- 10.4.5 The preferred spatial strategy performs well in relation to minimising flood risk, with this objective having been a clear focus of the site selection process. Areas of fluvial flood risk have been avoided, including those associated with the River Roding on the eastern edge of Loughton, a factor that has had a bearing on the decision to allocate urban open space within the town. There remain issues of surface water flood risk to be considered further through site specific work, including on the basis that sites can potentially have an impact in combination. It should also be noted that the preferred strategy performs well in respect of avoiding the floodplain of the River Lee, which runs along the western boundary of the District, to the west of Waltham Abbey and Lower Nazeing as well as the west and north of Roydon.

Commentary on other policies

- 10.4.6 There are a number of policies that will help to minimise per capita CO₂ emissions from transport as well as per capita CO₂ emissions from the built environment.
- 10.4.7 Draft Policy T 1 (Sustainable Transport Choices) seeks to improve access to sustainable transport modes. Development should seek to minimise the need to travel, promote opportunities for sustainable transport modes, improve accessibility to services and support the transition to a low carbon future. Furthermore, the policy requires that any development proposal likely to generate significant movements is supported by a Transport Statement or Transport Assessment; and a Travel Plan will normally be required.
- 10.4.8 In order to encourage the use of low emission vehicles to support improvements in air quality, Draft Policy T 1 commits to working in partnership with Essex County Council to achieve the appropriate provision of electric vehicle charging points, particularly on strategic housing and large scale commercial / retail developments, with further work to focus on parking standards.
- 10.4.9 Draft Policy DM 20 (Low Carbon and Renewable Energy) encourages the incorporation of low carbon and renewable energy measures in new and existing development, which includes standalone installations and micro renewables integrated into development. The use of CHP, and/or combined cooling, heat and power (CCHP) will also be encouraged in new developments. Furthermore, all major development will be required to incorporate infrastructure for district heating, and will be expected to connect to any existing suitable systems (including systems that will be in place at the time of construction), unless it is demonstrated that this would render development unviable.
- 10.4.10 In relation to climate change adaptation, Draft Policy DM 15 (Managing and Reducing Flood Risk) ensures that all proposals for new development avoid and reduce the risk of flooding to future occupants and do not increase the risk of flooding elsewhere. The overall aim is to steer new development into Flood Zone 1 or to areas with the lowest probability of flooding. Also, all proposals for new development will be required to manage and reduce surface water run-off, in line with Draft Policy DM 16 (Sustainable Drainage Systems) and manage water discharges, in line with Draft Policy DM 18 (On-site Management of Waste Water and Water Supply). This includes requiring the incorporation of Sustainable Drainage Systems (SuDS) and all major developments to reduce surface water flows to the 1 in 1 greenfield run-off rate.

Appraisal of the draft plan as a whole

- 10.4.11 Whilst housing growth in itself does not give rise to concerns regarding climate change mitigation, there is a need to minimise per capita emissions. This means distributing development to locations where car dependency and the need to travel long distances by car are minimised (with 'modal shift' supported), and supporting larger, strategic-scale development schemes that give rise to the greatest opportunity to design-in low carbon

infrastructure. In both respects the preferred spatial strategy performs well, and robust development management policies are set to be put in place to ensure that opportunities are realised; however, there is always the potential to 'go further', and climate change mitigation should be a focus of ongoing work (e.g. to ensure that adjacent development sites coordinate efforts).

- 10.4.12 Housing growth within the densely populated southern part of the District does give rise to concerns in relation to flood risk (the key climate change adaptation issue) given the presence of the River Roding to the east of the Central Line; however, the preferred spatial strategy directs growth away from areas of greatest risk, and again there is robust policy framework proposed that should help to ensure that residual risk (in particular in relation to surface water flood risk) is mitigated through the implementation of Sustainable Drainage Systems (SuDS).
- 10.4.13 On balance, it is appropriate to conclude **neutral effects** at this stage, i.e. it is not possible to conclude positive or negative effects on the baseline.²¹

10.5 Community and wellbeing

Commentary on the spatial strategy

- 10.5.1 Priority issues relate to the need to address pockets of relative deprivation locally; plan for an ageing population; and ensure that new and existing communities have adequate access to community infrastructure, including health and education facilities.
- 10.5.2 From a communities perspective there is merit to broadly distributing growth in accordance with the existing settlement hierarchy, and the preferred spatial strategy is set to do this to a large extent; however, there are certain settlements that are set to be a particular focus of growth. Notably, both Harlow and North Weald Bassett will be a focus of growth, which is supported given particular opportunities to deliver new community infrastructure. Also, Chipping Ongar is set to be a focus of growth reflecting the opportunity provided by the new secondary school. It is anticipated that additional housing growth coupled with additional community infrastructure can support targeted improvements to the town as a whole. At Loughton and Chigwell there are proposals to allocate existing areas of urban open space. There are concerns about the loss of areas of existing urban open space; however, an assessment has shown that within these settlements there will continue to be sufficient urban open space to meet local needs, as these proposed allocations will retain an appropriate element of open space. There are policies in the Draft Local Plan to improve accessibility to other green spaces and the wider Green Belt.

Commentary on other policies

- 10.5.3 The majority of policies in the Draft Plan will affect this topic in some way, either directly or indirectly, by helping to meet the needs of communities. The policies of particular importance are identified below:
- 10.5.4 Draft Policy H 3 (Affordable Housing) sets out the requirements for the provision of affordable homes and ensures that all new homes will be up to accessible and adaptable home standards. Draft Policy H 4 (Rural Exceptions) supports small-scale affordable housing schemes within the smaller settlements subject to a number of criteria.
- 10.5.5 Draft Policy T 1 (Sustainable Transport Choices) seeks to promote a safe, efficient and convenient transport system which will improve accessibility as well as promote and improve safety, security and healthy lifestyles. Development should be of high quality, sustainable in design, construction and layout, offering maximum flexibility in the choice of travel modes, including walking and cycling, and with accessibility for all potential users.

²¹ In relation to climate change mitigation, there is very little potential to conclude that a Local Plan will result in significant effects, recognising the climate change mitigation is a global issue.

- 10.5.6 Draft Policy DM 5 (Green Infrastructure Design of Development) requires development proposals to demonstrate that they have been designed to enhance connectivity and integration by providing pedestrian / cycle access to existing and proposed Green Infrastructure networks and established routes, including footpaths, cycle ways and bridleways/Public Rights of Way. Furthermore, proposals must demonstrate that they have been designed to enhance the public realm through the provision and/or retention of trees and/or designated and undesignated open spaces within built up areas.
- 10.5.7 Draft Policy DM 9 (High Quality Design) requires design-led development proposals that meet the diverse needs of people and reduce social exclusion, the risk of crime and the fear of crime. Furthermore, development proposals must contribute positively to the public realm and public spaces around development as well as maximise connectivity within and to the surrounding areas, which includes the provision of high quality and safe pedestrian and cycle routes.
- 10.5.8 Draft Policy D 1 (Delivery of Infrastructure) seeks to ensure that new development is served and supported by appropriate infrastructure and services identified through the Infrastructure Delivery Plan, which includes community infrastructure. It is also noted that the site allocation/place policies require supporting infrastructure to be delivered at a rate and scale to meet the needs that arise from the proposed development, in accordance with the Infrastructure Delivery Plan.
- 10.5.9 Draft Policy D 2 (Essential Facilities and Services) ensures that proposals will only be permitted where they provide or improve essential facilities and services required to serve the development proposed. The policy also supports proposals for new facilities where they will meet an identified local need.
- 10.5.10 Draft Policy D 4 (Community, Leisure and Cultural Facilities) permits development proposals where they retain and maintain existing facilities which are valued by the community and improve the quality and capacity of facilities valued by the community; and Draft Policy D 5 (Communications Infrastructure) promotes enhanced connectivity through supporting infrastructure for high speed broadband and telecommunications.

Appraisal of the draft plan as a whole

- 10.5.11 On balance the preferred spatial strategy should have the effect of addressing the challenges and capitalising on the opportunities that can result from housing growth. In particular, there are strategic opportunities on the fringes of Harlow and at North Weald Bassett, and also Chipping Ongar, that are set to be realised. A concern relates to the loss of some open space within Loughton and Chigwell, but it is not clear that the local community will be significantly disadvantaged as there is good provision within the settlements, and access to the wider green infrastructure network. It is assumed that housing growth will be supported by upgrades to community infrastructure capacity, to the benefit of new and existing residents; however, there is considerable uncertainty at this stage - i.e. it is the case that there is more work necessary to refine the Infrastructure Delivery Plan. On balance, it is appropriate to conclude **neutral effects** at this stage, i.e. it is not possible to conclude positive or negative effects on the baseline.

10.6 Economy and employment

Commentary on the spatial strategy

- 10.6.1 The preferred strategy is to allocate employment land to support job creation in accordance with findings of the Joint Economic Report prepared in coordination with neighbouring authorities within the sub-regional Functional Economic Area (FEMA). The spatial strategy must support employment growth within the M11 corridor in particular - recognising its regional importance given Stansted Airport - and it is set to achieve this (both through employment and housing growth) although further work will be undertaken to inform finalisation of the employment land strategy. Other positive aspects of the preferred strategy relate to: housing

growth in the vicinity of Harlow, therefore supporting its expansion as an employment centre; support for the continued expansion of North Weald Bassett as an employment location; and also support for targeted employment expansion at Waltham Abbey. Another specific issue locally is the need to support the ongoing operation of the horticultural glasshouse industry, although this is not a major focus of the spatial strategy.

Commentary on other policies

- 10.6.2 Policies seeking to improve connectivity and accessibility (including T 1), have the potential for a positive effect on businesses that rely on distribution, which includes the Lee Valley glasshouse industry. The provision of necessary infrastructure (T 2 & D 1) to support new development is an important aspect of this. Policies that seek to protect and enhance the natural environment (including SP 6, DM 1 and DM 17) and built heritage (DM 7 to 10) also have the potential for indirect positive effects on businesses that rely upon them.
- 10.6.3 Policies that more directly relate to the economy and employment include Draft Policy E 1 (Employment Sites), which seeks to retain and where necessary enhance existing employment sites and premises. It also resists the change of use of existing employment sites or premises. It proposes the allocation of new sites for employment to meet the identified need of the District in line with Policy SP 2. In accordance with Policy SP 3, Strategic Allocations (SP3.1 - SP3.4) will be required to make provision for an appropriate level of employment floorspace. In addition, the Council will allocate new employment land at other locations across the District to provide a flexible supply of future sites to cater for needs. Policy E 1 also supports and encourages the development of flexible local employment space to meet the employment and economic needs of the District. All new employment space should seek to meet the needs of local businesses and attract inward investment.
- 10.6.4 Draft Policy E 2 (Centre Hierarchy/ Retail) sets out the Town and District Centre hierarchy and supports proposals for retail, leisure, entertainment, offices, arts and culture, tourism and other main town centre uses within these areas where they will maintain and enhance the vitality and viability of town centres.
- 10.6.5 Draft Policy E 3 (Food Production and Glasshouses) supports new or replacement glasshouse and associated packhouse development subject to a number of criteria.
- 10.6.6 Draft Policy E 4 (The Visitor Economy) supports opportunities for the sustainable development of the visitor economy where they are of a scale, type and appearance appropriate to the locality and provide local economic benefits.

Appraisal of the draft plan as a whole

- 10.6.7 The plan is set to deliver on district-wide housing and employment land requirements and support the regeneration of Harlow, which should help to ensure that sub-regional economic growth objectives are realised. There is also likely to be an appropriate focus of growth within the key transport corridor(s), although in respect of employment land provision there is a need for further work to finalise the strategy. There are also more specific issues in relation to maintaining the role of existing centres, and supporting the Lee Valley Glasshouse industry, which are set to be addressed primarily through development management policies. On balance, it is appropriate to conclude **uncertain positive effects** at this stage.

10.7 Historic environment

Commentary on the spatial strategy

- 10.7.1 There are a large number of designated heritage assets (Conservation Areas, Listed Buildings, Scheduled Monuments, Registered Parks & Gardens) spread across the District, and built heritage makes an important contribution to local character. Epping, Chipping Ongar and Waltham Abbey are market towns of medieval origin, and several villages have designated Conservation Areas.

- 10.7.2 At this stage it is difficult to predict the likelihood of direct effects to designated Conservation Areas and other historic assets, or indirect effects through impacts to 'setting' or as a result of increased traffic congestion, given that some sites will change and limited information is available regarding how sites will be developed. However, one aspect of the strategy that does merit detailed consideration at this stage is the proposal to focus growth at North Weald Bassett, recognising the historic role of the airfield and the concentration of heritage assets. On balance, it is appropriate to conclude that housing and employment growth will be supportive of heritage conservation objectives. This recognises that the growth strategy proposed is not as high as some options that have been mooted for the village / airfield. Policy SP 3 identifies the requirements for bringing forward schemes in allocated sites, and the place shaping principles that must be followed.

Commentary on other policies

- 10.7.3 The key policy that relates to the protection of the historic environment is Draft Policy DM 7 (Heritage Assets), which seeks to protect heritage assets, requiring a heritage statement for any proposal that may affect both designated and non-designated heritage assets. Draft Policy DM 8 (Heritage at Risk) expects property owners/ partners to work proactively with the authority in bringing forward proposals for the conservation and enhancement of Heritage Assets at Risk, to secure their future and a viable use consistent with heritage significance.
- 10.7.4 Other policies that relate to high quality design also have the potential for a positive effect on the historic environment. This includes Draft Policy DM 9 (High Quality Design), which requires all new development to achieve a high specification of design and contribute to the distinctive character and amenity of the local area. The policy also requires development to relate positively to the locality, having regard to distinctive architectural styles and materials.
- 10.7.5 Other policies include Draft Policy DM 13 (Advertisements), which does not permit internally illuminated signs where heritage assets, a listed building or a conservation area is harmed. Draft Policy DM 20 (Low Carbon and Renewable Energy) permits low carbon and renewable energy provided that a positive assessment is provided demonstrating how any impacts on the environment and heritage assets can be avoided or mitigated, e.g. through scale and design.
- 10.7.6 There are also a number of policies that seek to protect and enhance the landscape character of the District, which is important in terms of protecting setting of designated heritage assets within the District. These include Draft Policies SP 6 (The Natural Environment, Landscape Character and Green Infrastructure), DM 2 (Landscape Character and Ancient Landscapes) and SP 5 (Green Belt and District Open Land).

Appraisal of the draft plan as a whole

- 10.7.7 Housing growth does not necessarily lead to conflicts with the historic environment, given the potential to address heritage at risk and improve the appreciation of heritage assets; however, there is some potential for conflict locally, e.g. given the potential for impacts to the landscape setting of heritage assets, and the potential for traffic through town and village centres to impact on heritage appreciation. Perhaps the most notable aspect of the preferred spatial strategy is the concentration at North Weald Bassett, which on balance is supported from a heritage perspective, given that the proposal is to deliver growth broadly in accordance with a recently prepared masterplan. On balance, it is appropriate to conclude **neutral effects** at this stage, i.e. it is not possible to conclude positive or negative effects on the baseline.

10.8 Housing

Commentary on the spatial strategy

- 10.8.1 The preferred strategy is to allocate sites to support housing growth in accordance with the identified need of 11,400 homes over the plan period. This figure has been established in coordination with neighbouring authorities within the sub-regional Housing Market Area (HMA). There is little evidence to suggest housing need varies significantly across the District,

and so it is difficult to comment on the merits of the spatial strategy. However, it is fair to assume that all settlements do have their own specific local housing needs, and so on this basis it is 'a positive' that the spatial strategy does involve a good degree of dispersal, with allocations directed to all settlements.

- 10.8.2 A specific issue is the need to plan for the accommodation needs of the Traveller communities locally, which necessitates providing land for pitches. The spatial strategy (Draft Policy SP 2) proposes the provision of 18 pitches and 1 yard to be provided through the allocation of sites to accommodate the needs of Travellers and Travelling Showpeople. This provision will be delivered through a sequential approach that includes the regularisation of existing sites with temporary permissions as well as the intensification and extension of existing traveller sites.

Commentary on other policies

- 10.8.3 Draft Policy H 1 (Housing Mix and Accommodation Types) seeks to ensure that an appropriate mix of housing and accommodation types is provided to meet the needs of all residents. This includes support for proposals for housing specifically designed to meet the identified needs of older people, specialist accommodation and self-build/custom build housing.
- 10.8.4 Affordable housing is identified as a key issue for the District and Draft Policy H 2 (Affordable Housing) seeks to ensure that sufficient level of affordable housing is provided as part of new development. It requires a minimum of 40% affordable housing to be delivered on development sites of 11 or more homes. The mix of affordable housing units in terms of affordable rent and intermediate housing will be required to accord with the latest available evidence set out in the SHMA. Draft Policy H 3 (Rural Exceptions) supports small-scale affordable housing schemes within the smaller settlements subject to a number of criteria.
- 10.8.5 Draft Policy SP 2 sets out the spatial development strategy and is considered above. Draft Policy SP 3 allocates a number of sites around Harlow to support the spatial strategy. There are also a number of policies in Chapter 5 that allocate sites for residential development to support the spatial strategy set out in Draft Policy SP 2.
- 10.8.6 Draft Policy SP 3 requires each site allocation around Harlow to provide land for 0.5ha (up to five pitches) in order to accommodate the future needs of Travellers and Travelling Showpeople in the District. Draft Policy H 4 (Traveller Site Development) seeks to meet the identified need for Travellers through the provision of plots and/or pitches as part of allocations set out in policies SP 2, SP 3, P 3, P 6, P 9, P 10 and P 12. In total, the plan proposes to allocate one expansion site, two intensification sites, two sites within wider residential allocation sites and four sites within the strategic sites (around Harlow) which, in total, will make provision for the delivery of approximately 36 pitches and one yard across the District up to 2033. While this figure is in excess of the identified minimum residual Traveller accommodation need, the approach should ensure a sufficient number of sites should the status of any of the sites identified for allocation change during the Draft Local Plan consultation or up to examination of the Local Plan. The approach performs well as it provides flexibility should the availability of sites change, allocates pitches as part of strategic sites and distributes the provision of pitches across the District.

Appraisal of the draft plan as a whole

- 10.8.7 The preferred strategy is to allocate sites to support housing growth to meet the agreed apportionment of the HMA need of 11,400 homes over the Plan period. This has been established in coordination with neighbouring authorities within the HMA. The strategy distributes housing amongst all settlements in the District, hence it is possible to conclude **significant positive effects**. The plan is also to provide for Traveller accommodation needs in full, and distribute new sites to appropriate locations.

10.9 Land and waste

Commentary on the spatial strategy

- 10.9.1 Key issues locally include the efficient use of land, whether there are potential contamination issues, the agricultural quality of land, and how waste issues will be managed; however, the spatial strategy, as understood at the current time, has limited implications.
- 10.9.2 The preferred strategy clearly involves the loss of some greenfield and agricultural land; however, opportunities to redevelop brownfield sites both within settlements and within the Green Belt are set to be maximised, and it is also the case that development of under-used urban open spaces can potentially be considered an efficient use of land. In respect of agricultural land quality, the best and most versatile (Grade 2) agricultural land is found in the northern part of the District. The presence of high grade agricultural land is one of the assessment criteria within the site selection process, and has therefore been fully taken into account.
- 10.9.3 Over 92% of the District is defined as part of the Metropolitan Green Belt. The Council has taken a sequential approach to the identification of possible locations for development beyond Harlow in which non-Green Belt land is prioritised for development over land within the Green Belt. The approach taken through the site selection process seeks to protect the most high value Green Belt land wherever possible, drawing on the findings of the Green Belt Review: Stage 2 in particular. It is clear from the Report on Site Selection that insufficient land outside the Green Belt exists to meet the development needs of the District within the Plan period. In order to meet the development needs identified, and achieve sustainable forms of development in and around existing settlements, amendments to the Green Belt boundaries are necessary.
- 10.9.4 As a result of this, the spatial strategy will result in the loss of Green Belt land, which includes areas identified as 'high quality', i.e. identified as contributing strongly to the Green Belt purposes. The loss of Green Belt land is set to be concentrated at Epping, Chipping Ongar and the fringes of Harlow. As noted above, while the preferred strategy will result in the loss of Green Belt land, the site selection process has sought to minimise the use of Green Belt for development purposes, drawing on the available evidence from both stages of the completed EFDC Green Belt Review. Efficient use of land has been sought by incorporating careful assessment of the potential capacity of sites, also as part of the site selection process.

Commentary on other policies

- 10.9.5 Although a number of references are made to encouraging the use of previously developed land throughout the Plan, there is no specific policy which relates to the use of previously developed land; this is however adequately addressed by the National Planning Policy Framework. In line with Draft Policy SP 2 (Spatial Development Strategy 2011-2033), Draft Policy E 3 (Food Production and Glasshouses) seeks to support food production in the Lee Valley by the glasshouse industry. However, it is noted that the wider agricultural land available within the District outside of the Lee Valley is not referred to in policy.
- 10.9.6 Draft Policy DM 21 (Local Environmental Impacts, Pollution and Land Contamination) promotes the remediation of contaminated land through development where possible. Furthermore, the policy also seeks to manage and limit environmental disturbances during construction and demolition as well as supporting the use of sustainable design and construction techniques, including where appropriate the local or on-site sourcing of building materials enabling reuse and recycling on site.
- 10.9.7 Draft Policy SP 5 sets out the approach to development within the Green Belt, allocation policies SP 2, SP 3 and SP 4 collectively identify that Green Belt land to be used for development purposes has been minimised in accordance with the stated objectives of the Plan. Policies within Chapter 5 identify the indicative alterations to Green Belt boundaries to be made as a result of the draft site allocations and identified developed anomalies (areas where development has already taken place within the Green Belt).

- 10.9.8 Draft Policy DM 11 (Waste Recycling Facilities on New Development) requires all new development that generates waste to make on-site provision for general waste and the separation of recyclable materials and organic material for composting. The policy also sets out requirements for new multi storey flatted residential development, including temporary storage space within each flat and adequate communal waste storage.

Appraisal of the Draft Plan as a whole

- 10.9.9 The preferred strategy clearly involves the loss of greenfield and agricultural land; however, opportunities to redevelop brownfield sites - both within settlements and within the Green Belt - are set to be maximised and it is also the case that development of under-used urban open spaces can potentially be considered an efficient use of land. On balance, it is appropriate to conclude **significant negative effects**; however, this conclusion is uncertain, given that there would be greenfield loss under a 'no plan' (or 'future baseline') scenario and that all the options would result in a similar conclusion. It is not clear that more could be done through the spatial strategy to minimise greenfield land take.

10.10 Landscape

Commentary on the spatial strategy

- 10.10.1 The sensitivity of the different Landscape Character Types and Areas to change within the District was considered through a Landscape Character Assessment published in 2010, with seven different broad Landscape Character Types identified, and a number of Landscape Character Areas being distinguished within each. The preferred spatial strategy has been developed on the basis of this evidence base, and also on the basis of local knowledge regarding how settlement edge sensitivity varies at each settlement (in particular through consultation with local Councillors).

- 10.10.2 The preferred strategy will result in development in some landscape areas of moderate as well as moderate to high sensitivity to change. Key sensitivities have been avoided where possible; and the Council has sought to avoid potential impacts to sensitive landscapes, including areas identified as sensitive through landscape character assessment. There is the potential for negative effects but mitigation provided through plan policies and available at the project level should ensure that residual effects are not significant. There is an element of uncertainty at this stage as the precise layout and design of development, sensitivity of the landscape in that area and mitigation available will determine the significance of effects.

Commentary on other policies

- 10.10.3 Draft Policy SP 6 (The Natural Environment, Landscape Character and Green Infrastructure) seeks to protect and enhance the natural environment, landscape character and GI. The policy seeks the conservation and enhancement of the character and appearance of the countryside, proposing that landscape character assessments will be used to assist in judgements on the suitability of new development. Furthermore, the policy expects all development proposals, where appropriate, to contribute towards the delivery of new green infrastructure proportionate to the scale of development and the rural or urban context.
- 10.10.4 Draft Policy DM 2 (Landscape Character and Ancient Landscapes) supports development proposals where applicants are able to demonstrate that the proposal will not, directly or indirectly, cause significant harm to landscape character or the nature and physical appearance of ancient landscapes. Proposals should be sensitive to their setting in the landscape, and its local distinctiveness and characteristics as well as use techniques to minimise impact on, or enhance the appearance of, the landscape.
- 10.10.5 The protection and enhancement of the landscape or character of the District is also referred to within a number of other policies, including Draft Policies E 3, DM 3, DM 5 and DM 20.

Appraisal of the Draft Plan as a whole

- 10.10.6 The preferred spatial strategy has been developed in light of landscape character assessment work, and also on the basis of local knowledge regarding how settlement edge sensitivity varies at each settlement (in particular through consultation with local Councillors). Key sensitivities have been avoided; and the Council has sought to avoid potential impacts to sensitive landscapes, including areas identified as sensitive through landscape character assessment. On balance, it is appropriate to conclude **uncertain negative effects** at this stage, recognising that there will be the potential to avoid/mitigate effects through site specific policy and masterplanning of proposed allocations and that the same conclusion could be drawn for all options.

10.11 Transport

Commentary on the spatial strategy

- 10.11.1 An initial analysis of traffic growth across the District has shown that, even without development in the future, parts of the highway network will be operating over-capacity, in some cases by 2026 and in other cases by 2036. Whilst some junctions could be improved most physically cannot be improved or would have environmental consequences if they were. For example, traffic congestion and delays that occur on the routes south of Epping could only be resolved by using land which forms part of Epping Forest.
- 10.11.2 The preferred spatial strategy involves a dispersed approach with a focus of development on the fringes of Harlow. Development directed towards the south of the District has good access to public transport and services/facilities and therefore good potential to support modal shift away from car dependency; however, there are existing traffic problems that could be worsened. There is also the potential to exacerbate capacity issues on the Central Line outside of the District. The Council's own analysis for the Draft IDP and advice from Transport for London (TfL) suggest that there is sufficient capacity on the Central Line within the District. Epping Forest District Council are working with TfL as well as Redbridge Borough and Waltham Forest Borough Councils to consider and understand the effects of growth further down the Central Line.
- 10.11.3 There is also a focus of growth at North Weald Bassett, which gives rise to some concerns from a traffic perspective, given existing highways and public transport connectivity, albeit there is potential for enhancement, and there are good links to Harlow. Harlow itself provides a good opportunity to focus development in a sustainable location, but also to use that critical mass of new development to delivery significant improvements to the transport network. The Council has been working with neighbouring planning authorities, Essex and Hertfordshire County Councils and Highways England to identify the necessary infrastructure to support new growth in this location. A draft Memorandum of Understanding has been prepared, which identifies a number of new infrastructure interventions that will be necessary. The most notable of these is a proposed new motorway junction on the M11 (Junction 7A).
- 10.11.4 More generally, the preferred strategy is broadly in accordance with the settlement hierarchy, indicating that housing growth will be in locations where new residents will have good opportunities to meet some of their day-to-day needs by walking/cycling, with the proposal to develop accessible urban open space sites supported in this respect. Also, the proposal to focus housing growth to the north of Waltham Abbey is supported, as this area is closer to the town centre than other areas to the east that have been the focus of housing growth over more recent times.

Commentary on other policies

- 10.11.5 Draft Policy T 1 (Sustainable Transport Choices) ensures that the Council will work in partnership to promote a safe, efficient and convenient transport system. This will be achieved by improving strategic road and rail connections, promoting transport choice through improvements to public transport services as well as promoting improved access to the town centres and sustainable transport modes by all forms of transport. It also seeks to manage

congestion and promote and improve safety, security and healthy lifestyles, encouraging the use of walking and cycling.

- 10.11.6 The policy states that development should seek to minimise the need to travel, promote opportunities for sustainable transport modes, improve accessibility to services and support the transition to a low carbon future. In order to encourage the latter, Draft Policy T 1 commits to working in partnership with Essex County Council to achieve the appropriate provision of electric vehicle charging points, particularly on strategic housing and large scale commercial / retail developments, with further work to focus on parking standards.
- 10.11.7 Furthermore, the policy requires that any development proposal likely to generate significant movements is supported by a Transport Statement or Transport Assessment; and a Travel Plan will normally be required.
- 10.11.8 Draft Policy T 2 (Safeguarding of Routes and Facilities) protects the land required for proposed transport schemes from developments which would prevent their proper implementation. It also protects local filling stations and supporting facilities from redevelopment for other uses.
- 10.11.9 Draft Policy D 1 (Delivery of Infrastructure) seeks to ensure that new development is served and supported by appropriate infrastructure and services identified through the Infrastructure Delivery Plan, which includes transport infrastructure. It is also noted that the site allocation/place policies require supporting infrastructure to be delivered at a rate and scale to meet the needs that arise from the proposed development, in accordance with the Infrastructure Delivery Plan.

Appraisal of the Draft Plan as a whole

- 10.11.10 The preferred spatial strategy involves a dispersed approach to development across the District with a focus of development on the fringes of Harlow. Development directed towards the south of the District will have good access to public transport and services/facilities and therefore good potential to support modal shift away from car dependency; however, there are existing traffic problems that could be worsened. There is also a focus of growth at North Weald Bassett, which gives rise to some concerns from a traffic perspective, given existing highways and public transport connectivity, albeit there is potential for enhancement, and there are good links to Harlow. Harlow itself provides a good opportunity to deliver new essential infrastructure across a range of sustainable modes, and policies in the Draft Local Plan will enable a cohesive approach to the delivery of housing, employment, community uses and infrastructure provision around the New Town. On balance, it is appropriate to conclude **uncertain positive effects** at this stage, recognising that there is some uncertainty at this stage, given limited understanding in relation to the number and direction of car movements that will result (given potential for enhancement to public transport and walking/cycling infrastructure); and the potential for traffic congestion (given the potential for road/junction improvements). Furthermore, a robust development management policy framework is proposed, which serves to allay concerns to some extent, e.g. helping to ensure that developments are designed with walking/cycling in mind.

10.12 Water

Commentary on the spatial strategy

- 10.12.1 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; however, there is little to indicate that this is a key issue for the spatial strategy. At most sites it should prove possible to ensure that adequate water supply and sewerage infrastructure are provided alongside development, although costs may vary, and in respect of Waste Water Treatment Works (WWTWs) there is thought to be capacity locally, although there have been concerns in the past, given the link between

WWTW capacity and water quality / nature conservation objectives.

Commentary on other policies

- 10.12.2 Draft Policy DM 19 (Sustainable Water Use) requires development proposals to demonstrate that water efficiency measures have been incorporated and that they meet a water efficiency standard of 110 litres or less per person per day. New non-residential development of 1,000 sqm gross floor area or more should aim to achieve at least a 30% improvement over baseline building consumption. The policy states that where new national standards exceed those set out above, the national standards will take precedence.
- 10.12.3 Draft Policy D 1 (Delivery of Infrastructure) seeks to ensure that new development is served and supported by appropriate infrastructure and services identified through the Infrastructure Delivery Plan, which includes transport infrastructure. It is also noted that the site allocation/place policies require supporting infrastructure to be delivered at a rate and scale to meet the needs that arise from the proposed development, in accordance with the Infrastructure Delivery Plan.
- 10.12.4 Draft Policy D 3 (Utilities) states that the Council will only permit development where there is sufficient capacity within the utilities infrastructure to meet the needs of the development. Importantly, where there is a capacity problem and no improvements are programmed by the utility provider, the Council will require the developer to fund appropriate improvements which must be completed prior to occupation of the development. The policy also acknowledges the importance of the phasing of developments, in particular for large sites, so that any required upgrades can take place prior to occupation.

Appraisal of the Draft Plan as a whole

- 10.12.5 There is a need to ensure that water demand/resources and waste water infrastructure capacity can be managed throughout the plan period; however, there is little to indicate that this is a key issue for the spatial strategy. At most sites it should prove possible to ensure adequate water supply and sewerage infrastructure is provided alongside development, although costs may vary, and in respect of Waste Water Treatment Works (WWTWs) there is thought to be capacity locally, although there have been concerns in the past, given the link between WWTW capacity and water quality / nature conservation objectives. It is appropriate to conclude **neutral effects** at this stage, i.e. it is not possible to conclude positive or negative effects on the baseline.

PART 3: WHAT HAPPENS NEXT?

11 INTRODUCTION (TO PART 3)

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

12 PLAN FINALISATION

12.1.1 Subsequent to the forthcoming consultation, the Council's intention is to prepare the Proposed Submission version of the Plan for publication. This will be the version of the Plan that the Council believes to be 'sound' and intends to submit to the Government for Examination in Public. The SA Report will be published alongside the Proposed Submission Plan, with a view to informing those making representations.

12.1.2 Subsequent to the publication stage, the main issues raised will be identified and summarised by the Council, which will then consider whether the Plan can still be considered '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).

12.1.3 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*.

13 MONITORING

13.1.1 In accordance with the Regulations, it is helpful to present 'measures envisaged concerning monitoring'. The Council has prepared a list of potential monitoring measures in Appendix 3 of the Draft Local Plan. **Table 13.1** lists a selection of the Council's proposed measures, as well as any wider monitoring measures, that are of particular importance given the findings of the appraisal presented in Part 2 of this report.

Table 13.1: A selection of the Council's potential monitoring measures

Sustainability topic	Proposed measure (given appraisal findings)
Air quality	<ul style="list-style-type: none"> • Preparation of a Joint Strategy to manage the impacts of growth on Epping Forest SAC (see Draft Memorandum of Understanding), which proposes the following monitoring: <ul style="list-style-type: none"> ○ forecast change in traffic flows, and subsequent impacts on air quality including continued monitoring of the Bell Common Air Quality Management Area
Biodiversity and green infrastructure	<ul style="list-style-type: none"> • Net gain/loss of habitat arising from development proposals. • New linkages between habitats by location • Epping Forest SAC & Lee Valley SPA: <ul style="list-style-type: none"> ○ Net gains/ losses of buffer land and alternative green space by function ○ Links achieved between LVRP and Epping Forest ○ Links achieved between LVRP, Epping Forest and other areas of open space • Preparation of a Joint Strategy to manage the impacts of growth on Epping Forest SAC (see Draft Memorandum of Understanding), which proposes the following monitoring: <ul style="list-style-type: none"> ○ visitor numbers and behaviour, purposes of visits and distances travelled; ○ forecast change in traffic flows, and subsequent impacts on air quality including continued monitoring of the Bell Common Air Quality Management Area; and

Sustainability topic	Proposed measure (given appraisal findings)
	<ul style="list-style-type: none"> ○ forecast change to visitor pressures, and any significant positive or negative impacts.
Climate change (mitigation and adaptation)	<ul style="list-style-type: none"> ● New developments containing electric charging points by land use type ● Number, location and type of proposals achieving low carbon design ● Number of decentralised low carbon and renewable energy schemes approved in development ● Approvals of development in flood risk zones 2, 3a and 3b by use class and flood risk compatibility ● Number of approvals and refusals in Local Flood Risk Zones
Community and wellbeing	<ul style="list-style-type: none"> ● Indices of multiple deprivation scorings ● Number of new connections made in the green infrastructure network ● Area of new accessible natural spaces provided through development proposals. ● Areas of improved access to natural green spaces provided through development proposals. ● Number and amount by area and type of new accessible space created by development e.g. woodland, hedgerow, ponds, parks, allotments etc. ● Linkages between new and existing development and the countryside/ other spaces. ● Loss/ gain of public open space by type e.g. park, children's playground, allotment
Economy and employment	<ul style="list-style-type: none"> ● Overall employment and unemployment rate ● Net additional employment floorspace ● Net additional floorspace of commercial development by location ● Area and number of new glasshouses constructed by location ● Annual tourism income
Historic environment	<ul style="list-style-type: none"> ● Number type and location of approved developments impacting on a heritage asset ● Number of heritage assets improved and raised out of the 'at risk' category.
Housing	<ul style="list-style-type: none"> ● Five year housing land supply ● Number of pitches for travellers and travelling show people provided ● Regular updates to the Gypsy and Traveller Accommodation Assessment ● Number of affordable homes completed in the reporting year ● The number of homes completed by type and bedroom size in the reporting year ● The number of homes completed through the provision of specialist housing in the reporting year ● The number of self-build/custom build homes completed in the reporting year
Land and waste	<ul style="list-style-type: none"> ● Applications refused on the grounds of harm to the Green Belt or District Open Land
Landscape	<ul style="list-style-type: none"> ● Positive landscape impact assessments on proposals approved ● Negative landscape impact assessments by EFDC on proposals refused
Transport	<ul style="list-style-type: none"> ● Road junction improvements ● Improvements in accessibility scoring by location for walking and cycling

Sustainability topic	Proposed measure (given appraisal findings)
	<ul style="list-style-type: none"> • Improvements in public transport networks • Numbers of Transport Plans agreed by location and land use type • Additional kilometres of public rights of way
Water	<ul style="list-style-type: none"> • Number and location of schemes implemented with sustainable drainage serving existing as well as new development • Number and location of developments contributing to maintenance of watercourse infrastructure • Number and location of developments including watercourse re-naturalisation or flood storage areas • Number and location of non-domestic schemes achieving a 30% reduction in water usage over base line. • Number of dwellings signed off as meeting (or not meeting) Part L optional standard for water efficiency.

APPENDIX I - REGULATORY REQUIREMENTS

As discussed in Chapter 2 above, Schedule 2 of the Environmental Assessment of Plans Regulations 2004 explains the information that must be contained in the SA Report; however, interpretation of Schedule 2 is not straightforward. Table A links the structure of this report to an interpretation of Schedule 2 requirements, whilst Table B explains this interpretation.

N.B. This report is not the final SA Report, but aims to present the required information nonetheless.

Table A: Questions answered by the SA Report, in accordance with an interpretation of regulatory requirements

		Questions answered	As per regulations... the SA Report must include...
Introduction		What's the plan seeking to achieve?	<ul style="list-style-type: none"> • An outline of the contents, main objectives of the plan and relationship with other relevant plans and programmes
		What's the sustainability 'context'?	<ul style="list-style-type: none"> • Relevant environmental protection objectives, established at international or national level • Any existing environmental problems which are relevant to the plan including those relating to any areas of a particular environmental importance
	What's the SA scope?	What's the sustainability 'baseline'?	<ul style="list-style-type: none"> • Relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan • The environmental characteristics of areas likely to be significantly affected • Any existing environmental problems which are relevant to the plan including those relating to any areas of a particular environmental importance
		What are the key issues and objectives that should be a focus?	<ul style="list-style-type: none"> • Key environmental problems / issues and objectives that should be a focus of (i.e. provide a 'framework' for) assessment
Part 1	What has plan-making / SA involved up to this point?		<ul style="list-style-type: none"> • Outline reasons for selecting the alternatives dealt with (and thus an explanation of the 'reasonableness' of the approach) • The likely significant effects associated with alternatives • Outline reasons for selecting the preferred approach in-light of alternatives assessment / a description of how environmental objectives and considerations are reflected in the Draft Plan
Part 2	What are the SA findings at this current stage?		<ul style="list-style-type: none"> • The likely significant effects associated with the Draft Plan • The measures envisaged to prevent, reduce and offset any significant adverse effects of implementing the Draft Plan
Part 3	What happens next?		<ul style="list-style-type: none"> • A description of the monitoring measures envisaged

Table B: Questions answered by the SA Report, in accordance with regulatory 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;	The relevant environmental protection objectives, established at international or national level	
(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 aspects of the current state of the environment and the likely evolution thereof without implementation of the plan'	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 environmental characteristics of areas likely to be significantly affected	
(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;	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 & objectives?</i>
(g) the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan;	Key environmental problems / issues and objectives that should be a focus of appraisal	
(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	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> [Part 1 of the Report]
(i) a description of the measures envisaged concerning monitoring.	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 assessment findings at this current stage?</i> [Part 2 of the Report]
	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> [Part 3 of the Report]

Whilst Tables A and B signpost *broadly* how/where this report presents the information required of the SA Report by the Regulations, as a supplement it is also helpful to present a discussion of *more precisely* how/where regulatory requirements are met - see Table C.

N.B. To reiterate, this report is not the final SA Report, but aims to present the required information nonetheless.

Table C: 'Checklist' of how (throughout the SA process) and where (within this report) regulatory requirements have been, are and will be met.

Regulatory requirement	Discussion of how requirement is met
Schedule 2 of the regulations lists the information to be provided within the SA Report	
a) An outline of the contents, main objectives of the plan or programme, and relationship with other relevant plans and programmes;	Chapter 3 ('What's the plan seeking to achieve') presents this information.
b) The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme;	These matters were considered in detail at the scoping stage, which included consultation on a Scoping Report. The Scoping Report was updated post consultation, and is available on the website.
c) The environmental characteristics of areas likely to be significantly affected;	The outcome of scoping was an 'SA framework', and this is presented within Chapter 4 ('What's the scope of the SA') in a slightly updated form.
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.;	Also, more detailed messages from the Scoping Report - i.e. messages established through context and baseline review - are presented (in an updated form) within Appendix II.
e) The environmental protection, objectives, established at international, Community or national level, which are relevant to the plan or programme and the way those objectives and any environmental, considerations have been taken into account during its preparation;	<p>The Scoping Report presents a detailed context review, and explains how key messages from the context review (and baseline review) were then refined in order to establish an 'SA framework'.</p> <p>The SA framework is presented within Chapter 4 ('What's the scope of the SA'). Also, messages from the context review are presented within appendix II.</p> <p>With regards to explaining "how... considerations have been taken into account" -</p> <ul style="list-style-type: none"> • Chapters 6 explains how reasonable alternatives were established in 2016 in-light of earlier consultation/SA. • Chapter 8 explains the Council's 'reasons for supporting the preferred approach', i.e. explains how/why the preferred approach is justified in-light of alternatives appraisal (and other factors).
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. (Footnote: These effects should include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects);	<ul style="list-style-type: none"> • Chapter 7 presents alternatives appraisal findings (in relation to the spatial strategy, which is the 'stand-out' plan issue and hence that which should be the focus of alternatives appraisal/ consultation). • Chapters 10 presents the Draft Plan appraisal. <p>As explained within the various methodology sections, as part of appraisal work, consideration has been given to the SA scope, and the need to consider the potential for various effect characteristics/dimensions.</p>

Regulatory requirement	Discussion of how requirement is met
g) The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme;	At the current time, the appraisal identifies how the plan might potentially 'go further' in certain respects, and makes a number of specific recommendations.
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;	<p>Chapters 5 and 6 deal with 'Reasons for selecting the alternatives dealt with', in that there is an explanation of the reasons for focusing on particular issues and options.</p> <p>Also, Chapter 8 explains the Council's 'reasons for selecting the preferred option' (in light of alternatives appraisal).</p> <p>Methodology is discussed at various places, ahead of presenting appraisal findings, and limitations are also discussed as part of appraisal narratives.</p>
i) description of measures envisaged concerning monitoring in accordance with Art. 10;	Chapter 13 presents measures envisaged concerning monitoring.
j) a non-technical summary of the information provided under the above headings	The NTS is a separate document.
The SA Report must be published alongside the Draft Plan, in accordance with the following regulations	
<p>authorities with environmental responsibility and the public, shall be given an early and effective opportunity within appropriate time frames to express their opinion on the Draft Plan or programme and the accompanying environmental report before the adoption of the plan or programme (Art. 6.1, 6.2)</p>	<p>An Interim SA Report, essentially presenting information on alternative spatial strategies ('scenarios'), was published as part of the 'Issues and Options' consultation in 2012.</p> <p>At the current time, this Interim SA Report is published alongside the Draft Plan, under Regulation 18, in order to ensure informed consultation responses.</p> <p>In the future, the SA Report will be published alongside the Proposed Submission plan, under Regulation 19, in order to ensure informed representations.</p>
The SA Report must be taken into account, alongside consultation responses, when finalising the plan.	
<p>The environmental report prepared pursuant to Article 5, the opinions expressed pursuant to Article 6 and the results of any transboundary consultations entered into pursuant to Article 7 shall be taken into account during the preparation of the plan or programme and before its adoption or submission to the legislative procedure.</p>	<p>Consultation responses made in relation to the Draft Plan, informed by this Interim SA Report, will be taken into account when preparing the Proposed Submission Plan for publication and submission.</p> <p>Appraisal findings presented within the SA Report will inform a decision on whether or not to submit the plan, and then (on the assumption that the plan is submitted) will be taken into account when finalising the plan at Examination (i.e. taken into account by the Inspector, when considering the plan's soundness, and the need for any modifications).</p>

APPENDIX II - CONTEXT AND BASELINE REVIEW

Introduction

As discussed in Chapter 4 ('What's the scope of the SA?') the SA scope is primarily reflected in a list of objectives ('the SA framework'), which was established subsequent to a review of the sustainability 'context' / 'baseline', analysis of key issues, and consultation. The aim of this appendix is to present a summary key issues emerging from context / baseline review.

Overview

Epping Forest District, which has a population of approximately 124,660 (in 2011), is located in Essex County to the north east of London. There are five main towns – Loughton/Debden and Buckhurst Hill in the south, Waltham Abbey to the west, Epping in the centre of the District, and Chipping Ongar towards the east. Villages and smaller settlements are dispersed throughout the rest of the District. The majority of the population is located in the south of the District – the combined populations of Buckhurst Hill, Chigwell and Loughton/Loughton Broadway (55,473) account for about 44.5% of the District's total population.

The District's six main retail/service centres are at Loughton, Loughton Broadway, Epping, Chipping Ongar, Buckhurst Hill and Waltham Abbey. These main centres are all fairly small compared with much larger centres nearby – notably Brookfield Shopping Park (in Broxbourne Borough), Chelmsford, Harlow Town, Romford and Westfield Stratford City; this causes significant and growing competition. In addition to the main retail/service centres, the main employment sites within the District are in Debden, Epping, Nazeing, North Weald Bassett (including the Airfield) and Waltham Abbey, where the larger industrial estates are located. Around half of the District's working residents commute out of the District for work, with the largest proportion travelling to London.

Housing affordability in the District has been a significant problem in more recent times. This is the same for similar areas situated on the border of Greater London, which are attractive to city commuters. Over the period from 2001 to 2013 housing was less affordable in the District than in England as a whole, and broadly comparable to that in East Herts District, Uttlesford District and Greater London as a whole.

The District is largely rural and over 92% of the land is currently designated as being in the Metropolitan Green Belt. The countryside of the District is gently undulating, dissected by two river valleys (the Lea and the Roding) and their tributaries. The District has an abundance of areas of importance for conservation and leisure for both the local and London's population. Epping Forest, which is owned and managed by the City of London Corporation, is a key natural feature of the District. Built and natural heritage features are an important part of the character of the District.

The District is bisected the M11 and M25 motorways which by are key parts of the strategic roads infrastructure. Incidents on both of these roads very quickly can result in impacts on the operation of the local road network within the District. The reverse can also happen. The consequences of this include:

- potential road safety issues, when the slip roads cannot clear resulting in stacking back onto the motorways;
- impacts on journey time reliability for both residents and businesses; and
- slow moving traffic increasing impacts on air quality with resultant health consequences to both residents and the District's environmental assets, such as Epping Forest.

Air quality

The Essex Air Quality Consortium suggests that traffic is the main source of air pollution within the District, which is bisected by the M11 and M25 motorways. Incidents on both of these roads can very quickly result in impacts on the operation of the local road network within the District. The reverse can also happen. The consequences of this include slow moving traffic increasing impacts on air quality with resultant health consequences to both residents and the District's environmental assets, such as Epping Forest.

There is currently one Air Quality Management Area (AQMA) declared within the District for Nitrogen Dioxide on High Road, Epping, just north of the M25. The Essex Air Quality Consortium suggest that there may be a need to declare further AQMA's in Epping and Loughton for Nitrogen Dioxide from stop-start traffic depending on whether or not the general improvements in cleaner vehicle technology deliver the desired results.

Biodiversity and green infrastructure

Epping Forest in the south of the District is designated as a Special Area of Conservation under the European Habitats Directive, which is primarily designated for its beech forest and stag beetles. The Lower Forest is also one of 8 'Sites of Special Scientific Interest' in the District which also affords a significant degree of protection. Nearby, the Turnford and Cheshunt pits in the Lea Valley are a 'Special Protection Area' which falls partly within the District. Special Protection Areas are internationally important for birdlife, and in this instance for wetland birds. There is also a designated Lea Valley 'Ramsar' site (a wetland of international importance), covering the part of the Turnford and Cheshunt pits within Epping Forest District.

Nine local nature reserves have been designated and the Essex Wildlife Trust has identified over 220 local wildlife sites. In addition to Epping Forest there are several other ancient woodlands in the District, including remnants of Hainault Forest, together with a significant number of ancient and veteran trees, including hedgerow pollards. Most of the western edge of the District (excluding the built-up areas of Waltham Abbey and Nazeing) is included in the Lee Valley Regional Park (LVRP). This is managed by the LVRP Authority as a place for leisure, recreation, sport and nature conservation.

Climate change (mitigation and adaptation)

The Government has set a target under the Climate Change Act 2008 to reduce CO₂ emissions by 80% by 2050, with an interim target of 34% by 2020, both against a 1990 baseline. The Government requires local planning authorities to adopt proactive strategies to mitigate and adapt to climate change and reduce the consumption of natural resources. For example, the impact of new development on climate change can be reduced by locating it where possible in places where it is not entirely necessary to rely on having access to a car; and by the design of carbon neutral homes which seek to achieve energy and water efficiency through sustainable construction and by increased use of renewable energy.

With regards to 'sustainable design and construction', the Local Plan's role is more limited, following Government's withdrawal of the Code for Sustainable Homes in March 2015. There is, however, the potential to minimise carbon emissions from the built environment by supporting decentralised, low carbon heat and electricity generation/transmission.

The Council's Carbon Reduction and Renewable Energy Assessment (2013) found that the potential in the District for large scale renewable energy production is hampered by the policy designation of the Green Belt. More positively, the Assessment concluded that small scale renewable energy schemes of all kinds can be accommodated in the District and incorporation in the design of development on larger sites is feasible and viable as would be installations on individual buildings. It also found the potential for combined heat and power (CHP) networks in the glasshouse industry to be significant in terms of carbon savings – if powered by traditional energy sources this is heavily reliant upon the fuel markets and there are viability concerns. However, if it is practical to provide through renewable energy sources then there is potential.

According to government statistics, Epping Forest District's total per capita CO₂ emissions in 2013 were the second highest in Essex (only behind Uttlesford) and above both the county average and England as a whole. However, it is noted that there has been a gradual decrease in per capita CO₂ emissions in the District since 2005.

The Strategic Flood Risk Assessment Level 1 Update 2015 (SFRA1) identifies that the forms of flooding experienced in the District are: 'fluvial' from rivers and other watercourses; 'pluvial' from rain i.e. surface water flooding resulting from rain; and 'groundwater' flooding which is the emergence of water from the ground away from river channels. Locations within the district have experienced flooding that has caused damage to property.

The SFRA 1 identified surface water run off as the greatest risk to the District with regard to flooding. Due to the underlying geology and the presence of water courses in the area there will continue to be flood risks. The corridors of the River Lee and River Roding, including their main tributaries Cobbins and Cripsey Brooks

contain the majority of the flood risk zones in the district – i.e. areas at risk from flooding by rivers. In particular the rapid onset, flash flooding of the smaller watercourse system is identified as an issue.

The improvement of the natural environment is a key aspect of the Councils response to climate change, providing opportunities to mitigate against the impacts of climate change and adapt to the changing climate.

Community and wellbeing

The District has five towns – Loughton/Debden and Buckhurst Hill in the south, Waltham Abbey to the west, Epping in the centre of the District, and Chipping Ongar towards the east. Epping, Chipping Ongar and Waltham Abbey are market towns of medieval origin. Villages and smaller settlements are dispersed throughout the rest of the District. The overall result is a significant concentration of population in the south of the District – the combined populations of Buckhurst Hill, Chigwell and Loughton/Loughton Broadway (55,473) accounted for about 44.5% of the District total as of the time of the 2011 Census.

The District has 20 parish councils and 4 town councils and covers an area of approximately 130 square miles. The 2011 Census recorded a population of about 124,660 people living in close to 54,400 dwellings. The District's population increased by almost 17,000 between the Censuses of 1961 and 2011. Government estimates that the District's population has risen by just over 5,000 since 2011. In 2011, compared to the rest of England, the District had smaller proportions of people aged under 30 and a larger proportion of people aged 45 to 64, and 65 and over. By 2033, projections suggest the proportion of people aged over 65 will rise sharply compared to the other age bands, and that there will be a significant drop in the proportion of people aged between 30 and 64. Projections also suggest that the proportion of those between 15 and 29 will drop slightly, and that the proportion of people aged 0 to 14 will rise a little.

The 2011 census found that the majority of the population described their ethnic group as 'White' (90.5%). A further 1.9% described their ethnic group as 'Black African/ Caribbean/ or Black British', 4.7% as 'Asian or Asian British' and the remaining 2.7% as 'mixed/ multiple ethnic groups' or as 'other ethnic' groups. These broad numbers include 80.5% of people who describe their ethnic identity as English, Welsh, Scottish or Northern Irish and 0.1% who describe it as Gypsy or Irish Traveller. This broad ethnic group breakdown is very similar to that of Essex, the East of England Region, and England as a whole.

Internal migration is projected to be the largest contributor to population growth most likely as a result of the District's location on the edge of London. Natural change (the net gain of births minus deaths, of District residents) is projected to be a relatively steady, smaller gain for the District. International migration is more difficult to measure, but is projected to form only a small proportion of the population change, being much less than internal migration. Whilst future migration trends may be affected by the UK leaving the EU; and whilst it is currently unclear what arrangements might be put in place to restrict immigration, the likely implications will need to be kept under review. It is however important to recognise that the ONS 2014 data already project that net international migration to England will reduce from 304,700 persons in 2014-15 to 169,500 per year from 2020-21 onwards; so rates would need to be lower than this for the population and associated household projections to reduce.

Government's Indices of Deprivation (2015) measure how deprived a 'Lower Super Output Area (LSOA)' area (this is usually equal to or smaller than an electoral Ward) is compared with all of the other areas in the country, using a range of indicators. It then ranks them in order of deprivation with 1 being the most deprived area in the country, and 32,844 being the least deprived. There are a total 78 Lower Super Output Areas within the District. The majority of the District experiences less 'deprivation' than the rest of the country, according to the Indices of Deprivation (2015). However, there are pockets of deprivation within the District when looking at factors including access to housing and services, and adult skills.

None of the areas within the District ranked within the 10% most deprived nationally (also known as the 1st decile). Parts of Loughton Alderton and Waltham Abbey Paternoster wards were ranked within the 20% most deprived (2nd decile), with parts of Grange Hill, Waltham Abbey North East and Waltham Abbey High Beach wards in the 30% most deprived (3rd decile). The District's pockets of deprivation are found both in urban and rural areas. The rural areas often (but not exclusively) score worse on the Index of Multiple Deprivation solely due to sub-rankings relating to the distance to specific local services and access to affordable housing.

Overall, measures for health are good, however the rankings show that there is some variation at a more localised level. Although average life expectancy is higher than the national average, it varies significantly in

different areas within the District. It is 5.3 years lower for men and 4.6 years lower for women in the most deprived areas compared with in the least deprived areas.

Births and deaths within the District have remained relatively steady in the District since 2007. There are more births than deaths, contributing to a rise in population. Life expectancy at birth in Epping Forest District in 2010-12 was higher than the national and the Essex averages, and similar to that of the East of England region. The District's life expectancy at birth has risen overall since 2000.

Economy and employment

The District's six main retail/service centres are at Loughton, Loughton Broadway, Epping, Chipping Ongar, Buckhurst Hill and Waltham Abbey. These main centres are all fairly small compared with much larger centres nearby – notably Brookfield Shopping Park (in Broxbourne Borough), Chelmsford, Harlow town, Romford and Westfield Stratford City; this causes significant and growing competition. In common with all other main retail/service centres, the growth of internet shopping is also an increasing threat to the viability and vitality of the District's retail/service centres.

In addition to the main retail/service centres, the main employment sites within the District are in Debden, Epping, Nazeing, North Weald Bassett (including the Airfield) and Waltham Abbey, where the larger industrial estates are located. Around half of the District's working residents commute out of the District for work, with the largest proportion travelling to London.

In 2014 there were 44,100 employee jobs based in the District, of which approximately 64.8% were full-time and 35.2% part-time. The District is particularly strong on jobs related to 'Construction', far outstripping the East of England and England average percentages. It is also stronger than average on 'Accommodation and Food services', and on 'Financial and other business services'.

Large employers in the District include: Kier and Higgins (with headquarters in Debden); Sainsbury's (with a distribution centre in Waltham Abbey and stores in Loughton, Debden and Ongar), Tesco in Waltham Abbey, Epping Forest District Council, Sports and Leisure Management (SLM, which manages the Epping Forest District Council's leisure centres), Essex County Council, the National Health Service, the Bank of England Printing Works, Epping Forest College and the working glasshouses which form the Epping Forest District part of the Lea Valley glasshouse industry.

The horticultural glasshouse industry has a long-standing and visible presence in Epping Forest District, as the larger part of a concentration of activity in the Lea Valley. This has somewhat declined from its peak in the 1950s as competition from overseas growers has increased. Nevertheless it still provides significant crops for the London and UK markets.

Economic activity rates in the District are high for both men and women, with 76.9% of 16-64 year olds in employment in April 2015 to March 2016; this number is higher than the average for England as a whole (73.9%), and very slightly lower than the average for the East of England (77%). Within this overall employment, male employment was 80.4%, and female employment was 73.5%. Self-employment accounted for 13.9% of all people employed in the District, compared to 10.3% in the East of England and 10.4% in England as a whole; demonstrating strong entrepreneurship in the local area. In June 2016 only 1.1% of 16-64 year olds were claiming Job Seekers Allowance, compared with 1.2% in the East of England and 1.7% nationally.

The types of jobs are categorised into Standard Occupation Classification (SOC) groups 1 to 9. In 2015-16 the District had more of the 'higher' classification jobs, such as managers, professional occupations etc., than the average for the East of England, or England as a whole.

A large proportion of businesses in the District in 2015 were 'micro' (0 to 9 employees – one person who is self-employed and has no employees counts as zero) or 'small' (11- 49 employees). The District has a higher proportion of 'micro' businesses than the averages for Essex, the East of England or England as a whole, showing how important they are to the local economy. There is also a high level of business start-ups in the District. Between 2009 and 2014 there was an 11.7% rise in the number of active enterprises in the District, which is higher than the percentage rise for Essex overall (7.60%), for the East of England region (6.45%) and for England as a whole (9.57%).

In 2015, the proportion of the District's residents with no qualifications was lower than the average for the East of England and for England as a whole. However, less of the District's residents had qualifications from an NVQ1 or above, to an NVQ 3 or above, than the average for the East of England or the average for England as a whole. Nevertheless, there are more of the District's residents with NVQ4 and above (i.e. all higher education qualifications) than the average for the East of England.

Historic environment

Built and natural heritage features are an important part of the character of the District. 25 conservation areas have been designated and there are over 1,300 listed buildings. In addition, there are over 30 scheduled monuments ranging from the earthworks of a Norman castle, to a Second World War fortification. There are currently a further 300 "locally listed" buildings as well as several registered parks and gardens. Epping, Chipping Ongar and Waltham Abbey are market towns of medieval origin.

Housing

It is expected that the total number of households (a household being a single person who lives alone, or a group of people who live together) in 2011 was roughly 52,000. This is expected to rise to approximately 66,460 by 2033. The household projections suggest that by 2033, there will be proportionately more households consisting of one person, or a family with dependent children, and proportionately less households consisting of one couple.

Housing affordability in the District has been a significant problem in more recent times. This is the same for similar areas situated on the border of Greater London, which are attractive to city commuters. Over the period from 2001 to 2013 housing was less affordable in the District than in England as a whole, and broadly comparable to that in East Herts District, Uttlesford District and Greater London as a whole.

The Council's housing waiting list stood at 1,360 households in August 2016. It has in previous years been significantly higher, but it dropped in 2013 when a revised Housing Allocations Scheme was applied, requiring applicants to have lived within the Epping Forest District for at least 3 years (or 2.5 for current tenants).

Land and waste

The District is largely rural and over 92% of the land is currently designated as being in the Metropolitan Green Belt. Agriculture is mainly arable, particularly in the north east of the District. The Council's Contaminated Land Strategy (2000) provides an overview of the District and identifies particular industries that have had an impact in terms of contamination as well as areas that may be affected.

Landscape

National policy and legislation supports the protection and improvement of the natural environment through measures such as the development of green infrastructure networks and through habitat and species protection together with the achievement of net gains in biodiversity.

The countryside of the District is gently undulating, dissected by two river valleys (the Lea and the Roding) and their tributaries. The District has an abundance of areas of importance for conservation and leisure for both the local and London's population. Epping Forest, which is owned and managed by the City of London Corporation, is a key natural feature of the District. The main part of the Forest runs from Wanstead (in London) along the north-west boundary of Buckhurst Hill, Loughton and Theydon Bois and extends to the southern end of Epping. A separate area (The Lower Forest) abuts Epping on its north-eastern edge.

Construction from the mid to the late 19th century of what is now part of the London Underground Central Line, and the proximity to London, have greatly influenced the scale and location of development in the District. Significant growth of Buckhurst Hill and Loughton/Loughton Broadway and, to a lesser extent, Chigwell, Epping and Theydon Bois, followed the development of the railway. The post-World War II London overspill estates led to considerable expansion of Waltham Abbey and Debden (also known as Debden).

Transport

The M25 runs east-west through the District, with a local road interchange at Waltham Abbey. The M11 runs north-south, with a full interchange (Junction 7) at Hastingwood just south of Harlow, and a northward –off/southward- on interchange (Junction 5) at Loughton. There is also a motorway only interchange with the M25 south-east of Epping (Junction 6). The A414 is a key east-west route and this crosses the District from Harlow to Ongar on the way to Chelmsford and the Essex coast. Incidents on the M11 and M25 can quickly result in impacts on the operation of the local road network within the District.

An initial analysis of traffic growth across the District has shown that even without development in the future parts of the highway network will be operating over-capacity, in some cases by 2026 and in other cases by 2036. Whilst some junctions could be improved most physically cannot be improved or would have environmental consequences by doing so. For example, traffic congestion and delays that occur on the routes south of Epping could only be resolved by using land which forms part of Epping Forest.

The south-west of the District is served by the London Underground Central Line (both the main line and the 'Hainault via Newbury Park' loop). Epping Station is the eastern terminus and there are 7 other stations in service in the District. There is one national railway station in the District – at Roydon on the Liverpool Street to Stansted and Cambridge line, although other railway stations (Broxbourne, Sawbridgeworth, Harlow Town and Harlow Mill) are close to, and accessible from, the District. The Central Line used to run further than Epping, through stations at North Weald and Blake Hall to the end of the line at Ongar, but this section of the line was closed in 1994, with Blake Hall station being closed in 1981. In recent years the 'Epping and Ongar Railway' has been established, a nationally recognised heritage rail service running on this former Central Line track from Epping to Ongar. There is currently no operational rail connection between the heritage rail line and the Central Line track at Epping, but the 'Epping and Ongar Railway' runs some shuttle bus services locally.

The greatest number of those who commute into the District come from Harlow and the London Borough of Redbridge, and the greatest number of District residents commuting out go to Westminster (City of London), and boroughs within London. District residents most commonly travel to work using a car or van (or taxi), following the pattern for Essex, the East of England and England as a whole. However, there is far higher use of 'Underground, metro, light rail or tram' public transport for commuting from the District than any of those other three areas, due to the proximity of London and the presence of any London Underground Central Line stations in the District.

There is evidence of proportionally high levels of working from home in the District. In 2011, 4.05% of the District's employed residents (16-74 years) worked 'at or from home', which was slightly higher than the average numbers for Essex, the East of England region, and in England as a whole.

Water

National policy sets out that local authorities should adopt proactive strategies in regard to climate change resilience and take full account of water supply and demand considerations. They should include local plan policies to deliver the provision of infrastructure including waste management, water supply and wastewater.

The River Roding flows from the north to the south along parts of the eastern boundary of the district. A major tributary to the River Roding is the Cripsey Brook. The Lee Navigation, Old River Lee and Lee Flood Relief Channel (FRC) flow along the western boundary of the district and the River Lee's catchment occupies the western third of the district. The upstream catchment is largely rural, while the Lower Lee catchment is heavily urbanised with the combination of man-made, impermeable surfaces and low permeability clay soils. The two main tributaries of the Lower Lee are the Nazeing Brook and Cobbins Brook.

A small proportion of the north of the district falls into the catchment of the River Stort, and finally, the River Ingrebourne catchment is located on the south eastern boundary of the district.

APPENDIX III - SPATIAL STRATEGY ALTERNATIVES

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 -

Option		Quantum	Distribution
1	The preferred option	Meet the housing requirement of ~11,400 homes	The preferred strategy*
2	Lower growth at North Weald Bassett (NWB)		Lower growth at NWB, and consequentially higher growth elsewhere (dispersed)
3	Higher growth at NWB		Higher growth at NWB, and consequentially lower growth elsewhere (dispersed)
4	Lower growth at urban greenspaces		Lower growth at urban greenspace sites, and consequentially higher growth elsewhere (dispersed)
5	Higher growth along the Central Line		Higher growth at settlements served by the Central Line, and consequentially lower growth elsewhere (dispersed)

Appraisal methodology

For each of the options, the assessment examines **likely significant effects** on the baseline, drawing on the sustainability 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 would be. 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.²²

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'. A star is used to highlight the option or options that are preferred from an SA perspective.

Finally, it is important to note that effects are predicted taking into account the criteria presented within Regulations.²³ 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 Epping Forest District Local Plan).

Appraisal findings

Appraisal findings are presented below within 11 separate tables (each table dealing with a specific sustainability objective) 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.





²² Conclusions reached on significant effects in relation to Option 1 - the Council's preferred option - are supplemented within Chapter 10 of this report, which presents an appraisal of the draft plan - i.e. the preferred spatial strategy plus supporting policies.





²³ Schedule 1 of the Environmental Assessment of Plans and Programmes Regulations 2004.

Sustainability Topic: <u>Air quality</u>					
	Option 1 The preferred option	Option 2 Lower growth at NWB	Option 3 Higher growth at NWB	Option 4 Lower growth at urban greenspaces	Option 5 Higher growth along the Central Line
Rank	=	=	=	=	=
Significant effects?	?				
Discussion	<p>There is currently one Air Quality Management Area (AQMA), declared for Nitrogen Dioxide on High Road, Epping (Bell Common). Epping High Street had an AQMA that was revoked in 2011, and the Essex Air Quality Consortium suggest that there may be a need to declare further AQMAs in Epping and Loughton, for Nitrogen Dioxide arising from stop-start traffic, depending on whether or not improvements in cleaner vehicle technology deliver the desired results.</p> <p>Traffic modelling and air quality impact assessment was undertaken to support the assessment of the different HMA Options. Options A to E were found to have similar effects on traffic increases within the areas declared as AQMAs, which includes the High Road AQMA within Epping District.</p> <p>Option 1 involves a dispersed approach to the distribution of development across the District with a focus of development on the fringes of Harlow. This includes growth in the south of the District around the Central Line. While it could be predicted that this would result in a higher level of traffic in an area already experiencing congestion, it could also be said that housing will be located in an area with good access to the rail network and services/facilities, which would help to reduce private vehicle use and therefore traffic.</p> <p>Option 2 proposes less development at North Weald Bassett, so it would be likely to have less impacts on the local highway network, including through Epping. It is recognised that the town has limited public transport accessibility and residents are reliant on other settlements for access to key services. Option 2 could allow for development to be directed towards other areas in the District with better accessibility to public transport and services; conversely, development could also be delivered in areas with poorer access depending on its location.</p> <p>Option 3 proposes more development at North Weald Bassett, so would be more likely to have impacts on the local highway network. As stated above, it is recognised that the town has limited public transport accessibility and residents are reliant on other settlements for access to key services. This option therefore provides a better opportunity compared to other options, in particular Option 2, to improve existing sustainability issues through associated improvements to public transport infrastructure and services/facilities as a result of housing growth. As per Option 2, this option could result in growth being displaced from areas with better or poorer access to public transport and facilities/services, but this is uncertain at this stage.</p> <p>Option 4 proposes less development on urban greenspaces, primarily in Loughton but also Waltham Abbey, Chigwell and Coopersale. Less development within Loughton could help to reduce impacts on local highway infrastructure in an area where there are existing congestion and air quality issues; however, as for Option 2 this could result in housing being located further away from the rail network and services/facilities.</p> <p>Option 5 would focus growth to a greater extent along the Central Line; therefore, directing more growth towards the south of the District. While it could be predicted that this would result in a higher level of traffic in an area already experiencing congestion, it could also be said that housing will be located in an area with excellent access to the rail network and services/facilities, which would help to reduce the use of the private vehicle and therefore traffic. A greater level of housing could also result in greater improvements to transport infrastructure and services and facilities which could also help to reduce private vehicle use.</p> <p>In conclusion: While all of the options propose the same overall level of housing growth, there are variations as to how this growth is distributed across the District. There are existing</p>				

congestion and air quality issues in the south of the District and options that focus or direct development there could exacerbate this; however, on the other hand, settlements in the south of the District have good access to public transport (in particular the Central Line), employment and services/facilities. Growth at North Weald Bassett and Epping also gives rise to some concerns, given the District's only designated Air Quality Management Area (AQMA) on the southern edge of Epping; however, the findings of work to examine strategic growth options at the HMA scale serves to allay concerns (albeit this work was focused on impacts to the condition of Epping Forest SAC, as opposed to the matter of worsening air quality within the AQMA). It is predicted that all of the options have the potential for a negative effect on air quality as a result of increased traffic; however, the significance of this is uncertain at this stage. At this stage it is difficult to differentiate the alternatives in terms of air quality.

Sustainability Topic: Biodiversity and green infrastructure

	Option 1 The preferred option	Option 2 Lower growth at North Weald Bassett	Option 3 Higher growth at North Weald Bassett	Option 4 Lower growth at urban greenspaces	Option 5 Higher growth along the Central Line
Rank					5
Significant effects?	?	?	?	?	Yes
Discussion	<p>Important biodiversity designations are predominantly located in the south and south west of the District, which includes the Lee Valley and Epping Forest nature conservation designations (SAC, SPA, Ramsar, SSSI). The north east of the District has little in the way of significant nature conservation designations (European sites and SSSIs).</p> <p>Potential effects on the Lee Valley SPA/Ramsar and Epping Forest SAC were considered through the HRA process undertaken with respect to the HMA strategic spatial options. This considered: disturbance from recreational activities and urbanisation; atmospheric pollution; water abstraction; and water quality. It was concluded that none of the options would result in adverse effects on any European sites.</p> <p>Options 5 stands out as performing poorly. It is likely to result in the greatest level of growth in areas that are close to sensitive receptors in the south and south east of the District. This increases the likelihood for negative effects on important biodiversity as a result of increased atmospheric pollution (traffic) and disturbance (recreational).</p> <p>The nature of the effect for Option 2 will depend to some extent on where the development from North Weald Bassett is redirected. If it is spread across other settlements in the District then it could result in a minor increase in development to the south compared to Option 1 but this is uncertain. If it is directed primarily towards settlements and the rural area in the north and north east, it would be likely to have little effect on sensitive receptors in the south.</p> <p>Option 3 proposes a higher level of development directed towards North Weald Bassett. There are no significant (international or national) biodiversity designations within or adjacent to the town; however, there would be the potential for negative effects on local biodiversity, including a number of Local Wildlife Sites. It is assumed that this option would help to reduce the level of development in the south of the District and therefore reduce some of the pressure on the sensitive receptors there; however, there is no certainty in this respect.</p> <p>Option 4 proposes less development on urban greenspaces, primarily in Loughton but also Waltham Abbey, Chigwell and Coopersale. As for Option 2, the nature of effects for this Option will depend to some extent on where this development is redirected, but it is noted that there could be increased pressure to develop sites on the edge of Loughton (where there is a concentration of urban open space in contention for development), which could lead to conflict with biodiversity objectives (given Epping Forest and the Roding Meadows SSSI).</p> <p>In conclusion: Sensitive receptors (international and national nature conservation designations) are predominantly located in the south and south west of the District. Options that focus development in these areas therefore, have a greater likelihood for significant negative effects on biodiversity compared to options that could direct some of the growth to other areas in the District, such as the north and north east where there are relatively few sensitive receptors. Taking this into account, the appraisal finds that Option 5 stands out as performing poorly. Option 5 has the potential for a negative effect of greater significance compared to the other options as it is likely to result in the highest level of growth in the south.</p>				

Sustainability Topic: <u>Climate change (mitigation and adaptation)</u>					
	Option 1 The preferred option	Option 2 Lower growth at North Weald Bassett	Option 3 Higher growth at North Weald Bassett	Option 4 Lower growth at urban greenspaces	Option 5 Higher growth along the Central Line
Rank					5
Significant effects?	?				
Discussion	<p>With regards to climate change mitigation, key issues relate to A) the need to capitalise upon opportunities to design-in low carbon infrastructure, and therefore reduce per capita related CO₂ emissions; and B) the need to reduce car dependency and distance travelled by private car, and therefore per capita transport related CO₂ emissions. In relation to the latter point, the Council’s Carbon Reduction and Renewable Energy Assessment (2013) concluded renewable and low carbon electricity and heat generation schemes of all kinds could be feasible and viable on larger schemes in the District.</p> <p>With regards to climate change adaptation, a key issue is flood risk. The Strategic Flood Risk Assessment (SFRA) Level 1 Update 2015 identifies that the forms of flooding experienced in the District are: ‘fluvial’ from rivers and other watercourses; ‘pluvial’ from rain i.e. surface water flooding resulting from precipitation; and ‘groundwater’ flooding which is the emergence of water from the ground away from river channels. The corridors of the River Lee and River Roding, including their main tributaries Cobbins and Cripsey Brooks contain the majority of the flood risk zones in the District – i.e. areas at risk from flooding by rivers; and the rapid onset, flash flooding of the smaller watercourse system is identified as an issue.</p> <p>In terms of transport related CO₂, Option 5 stands-out as performing well given a focus in the south of the District, where there is good access to public transport and services/facilities; and Option 3 potentially performs relatively poorly given a focus on North Weald Bassett, which is less well linked (albeit there is potential for enhancement).</p> <p>In terms of built environment CO₂, it is difficult to differentiate the alternatives. All provide opportunities to deliver strategic or large scale developments that could incorporate low carbon or renewable energy schemes. It could be predicted that Option 5 has a greater likelihood to achieve this as development would be concentrated around the Central Line; however, at this stage this is uncertain.</p> <p>In terms of flood risk, options that direct growth towards the south of the District, in particular to the east of the Central Line, could be more likely to have a negative effect on this topic as there are areas of high flood risk given the presence of the River Roding, with Loughton/Debdon particularly constrained. The loss of development on urban greenspace through Option 4 could increase pressure for sites on the edge of existing settlements within the Green Belt, particularly in Loughton as that is where the majority of urban greenspace sites are located. Depending on the location of this development this could have negative effects in relation to flooding given the issues identified above.</p> <p>In conclusion: All of the options offer similar opportunities in terms of reducing built environment related CO₂ emissions, whilst Option 5 performs well in terms of minimising transport related CO₂ emissions. In terms of flooding (a key climate change adaptation issue), options that increase the pressure on the River Roding flood plain (in particular south and south east of Loughton/ Debdon) are more likely to have a negative effect; however, there is an element of uncertainty at this stage.</p>				

Sustainability Topic: Community and wellbeing

	Option 1 The preferred option	Option 2 Lower growth at North Weald Bassett	Option 3 Higher growth at North Weald Bassett	Option 4 Lower growth at urban greenspaces	Option 5 Higher growth along the Central Line
Rank	=	=	=	=	=
Significant effects?	Yes				
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.</p> <p>Given that all of the options are proposing the same level of growth, it is predicted that they all have the potential for a significant long-term positive effect for the District as a whole, through the provision of housing and associated improvements to infrastructure, including community facilities/services and public transport.</p> <p>When compared against each other the options are likely to have both enhanced and reduced positive effects for certain communities depending on where growth is being directed. Option 2 is likely to have a reduced positive effect for the communities in and around North Weald Bassett compared to the other options given the lower level of housing proposed. It is also less likely to maximise opportunities for development presented by the airfield as well as address the current issue of residents relying on services/facilities in other settlements. Conversely, Option 3 is likely to have an enhanced positive effect as a greater level of development is proposed there and is more likely to maximise opportunities for development at the airfield as well as improve access to services and facilities which is recognised as an existing issue.</p> <p>Option 5 is likely to have a reduced positive effect for settlements away from the Central Line but an enhanced positive effect for those around it. This option is less likely to help address the deprived areas within Waltham Abbey (Waltham Abbey Paternoster, North East & High Beach Wards) but more likely to help deprived areas in the south of the District, such as the Loughton Alderton Ward. It is also less likely to help balance the growth of Waltham Abbey, as it is recognised that the settlement has been spreading eastwards away from the historic centre where the majority of services/facilities are located. This option would be more likely to take advantage of existing capacity of educational facilities in Loughton but less likely to take advantage of existing capacity within the primary schools and newly opened secondary academy in Chipping Ongar.</p> <p>Option 4 could have a reduced positive effect for those communities in settlements where there are urban greenspaces available, as development would be directed elsewhere. However, it is possible that this development could be directed to the edge of the same settlement in the Green Belt, therefore the difference may only be minor depending on where the displaced growth is located.</p> <p>In conclusion: All of the options have the potential for a significant long-term positive effect for the District as a whole, through the provision of housing and associated improvements to infrastructure, including community facilities/services and public transport. When compared against each other the options are likely to have both enhanced and reduced positive effects for certain communities depending on where growth is being directed; however, it is difficult to differentiate between the alternatives. Option 5 is likely to have a reduced positive effect for settlements away from the Central Line but an enhanced positive effect for those around it. It is less likely to help address issues within the deprived areas within Waltham Abbey, but more likely to help deprived areas in the south of the District, such as the Loughton Alderton Ward. It is also less likely to help balance the growth of Waltham Abbey, as it is recognised that the settlement has been spreading eastwards away from the historic centre where the majority of services/facilities are located. This option would also be more likely to take advantage of existing capacity of educational facilities in Loughton but less likely to take advantage of existing capacity within the primary schools and newly opened secondary academy in Chipping</p>				


 Ongar.

Sustainability Topic: Economy and employment

	Option 1 The preferred option	Option 2 Lower growth at North Weald Bassett	Option 3 Higher growth at North Weald Bassett	Option 4 Lower growth at urban greenspaces	Option 5 Higher growth along the Central Line
Rank	=	=	=	=	=
Significant effects?	?				
Discussion	<p>The District's six main retail/service centres are at Loughton, Debden, Epping, Chipping Ongar, Buckhurst Hill and Waltham Abbey. These main centres are all fairly small compared with much larger centres nearby – notably Brookfield Shopping Park (in Broxbourne Borough), Chelmsford, Harlow town, Romford and Westfield Stratford City; this causes significant and growing competition. In addition to the main retail/service centres, the main employment sites within the District are in Debden, Epping, Nazeing, North Weald Bassett (including the Airfield) and Waltham Abbey, where the larger industrial estates are located. Around half of the District's working residents commute out of the District for work, with the largest proportion travelling to London.</p> <p>Development can open up new employment opportunities through stimulating the creation of new employment sites and through boosting local labour markets. All of the options are likely to support existing as well as new employment opportunities across the District with the potential for positive effects against this topic. The significance of the effects for each option will differ at a local or settlement level depending on where the displaced growth is located.</p> <p>Option 5 is likely to have an enhanced positive effect compared to all the other options on the existing retail centres and employment in the south of the District near the Central Line. Options 1 and 4 are likely to have similar effects, depending on where development on urban greenspaces is relocated. If it remains in the south of the District then there are unlikely to be any significant differences between options 1 and 4.</p> <p>Option 2 proposes a lower level of growth at North Weald Bassett so could therefore have a reduced positive effect compared to the other options on existing employment and the local economy of the town. Conversely, Option 3 proposes a higher level of growth so has the potential for enhanced positive effects in terms of supporting existing and providing new employment opportunities for North Weald Bassett. It is difficult to predict the other ways options 2 and 3 may affect the economy and employment of the wider District as it is not clear where this additional growth will be located. However, there are unlikely to be significant differences when compared against the other options.</p> <p>Option 4 proposes less growth within urban greenspaces and it is not clear at this stage exactly where this growth would be located so it is difficult to predict the nature and significance of effects and highlight differences compared to other options. The loss of urban greenspace may mean there is more pressure for development on the edge of settlements within the Green Belt, particularly around Loughton where there are the most urban greenspace sites available. If development remains on the edge of the settlements where the urban greenspace is available then there is unlikely to be any significant differences between options 4 and 1.</p> <p>It is considered that none of the options are likely to have a significantly different effect in terms of supporting employment growth associated with Stanstead Airport and the planned development of the glasshouse industry. Options 2, 4 & 5 provide an opportunity to re-direct some growth to the north and west of the District to help support employment growth in these areas compared to Options 1 and 3. However, this is uncertain at this stage.</p> <p>In conclusion: It is difficult to differentiate the alternatives in terms of the local economy and employment opportunities overall. All are likely to support existing as well as new employment opportunities across the District with the potential for positive effects at the District scale. The significance of the effects for each option will differ at a local or settlement scale.</p>				

Sustainability Topic: <u>Historic environment</u>					
	Option 1 The preferred option	Option 2 Lower growth at North Weald Bassett	Option 3 Higher growth at North Weald Bassett	Option 4 Lower growth at urban greenspaces	Option 5 Higher growth along the Central Line
Rank	=	=	=	=	=
Significant effects?	?				
Discussion	<p>Built and natural heritage features are an important part of the character of the District. There are a large number of designated heritage assets (Listed Buildings, Scheduled Monuments, Conservation Areas, Registered Parks & Gardens) spread across the District. While all of the options propose the same overall level of housing growth, there are variations as to how this growth is distributed across the District.</p> <p>Overall the designated heritage assets appear to be fairly evenly spread across the District. Option 5 is likely to result in the highest level of growth in the south of the District around the Central Line. This means that it has a greater potential for negative effects on designated heritage assets situated within this area.</p> <p>Option 4 proposes less growth within urban greenspaces and it is not clear at this stage exactly where this reallocated growth would be located so it is difficult to predict the nature and significance of effects and highlight differences compared to other options. Not developing on urban greenspace might mean there is more pressure for development on the edge of settlements within the Green Belt, particularly around Loughton where there are the most urban greenspace sites available. If development remains on the edge of the settlements where the urban greenspace is available then there are unlikely to be any significant differences between Options 1 and 4. It should be noted that there are three Conservation Areas within Loughton and they are all situated to the north west of the town adjacent to Epping Forest.</p> <p>Option 2 proposes a lower level of growth at North Weald Bassett so is less likely to have negative effects on designated heritage assets within and around the town. Conversely, Option 3 proposes a higher level of growth and therefore has the greatest likelihood for negative effects on designated heritage assets within and around the town. The significance of effects will depend on the precise location of development. It should be noted that there is a Scheduled Monument situated to the south east of North Weald Bassett but Option 1 locates development away from this. It is difficult to predict the other ways Option 2 and 3 may affect the historic environment of the wider District. However, there are unlikely to be significant differences when compared against the other options.</p> <p>In conclusion: Given their strategic nature it is difficult to differentiate the alternatives, in terms of the nature and significance of effects on the historic environment.</p>				

Sustainability Topic: <u>Housing</u>					
	Option 1 The preferred option	Option 2 Lower growth at North Weald Bassett	Option 3 Higher growth at North Weald Bassett	Option 4 Lower growth at urban greenspaces	Option 5 Higher growth along the Central Line
Rank	=	=	=	=	=
Significant effects?	Yes				
Discussion	<p>All of the options will have a significant long-term positive effect by meeting housing need established through sub-regional joint working (which included a Strategic Housing Market Assessment, SHMA). While the options above vary the distribution of growth across the District, none of the options is considered likely to result in a situation whereby local communities housing needs are not met. Option 5 could result in less housing at some of the settlements away from the Central Line, but it is assumed that there would still be sufficient allocations to ensure that local needs are met.</p> <p>In conclusion: All of the alternatives have the potential for a significant long-term positive effect on housing by ensuring that housing needs are met in full. There are no significant differences between the alternatives.</p>				

Sustainability Topic: <u>Land and waste</u>					
	Option 1 The preferred option	Option 2 Lower growth at North Weald Bassett	Option 2 Higher growth at North Weald Bassett	Option 4 Lower growth at urban greenspaces	Option 5 Higher growth along the Central Line
Rank	2	3	3	5	
Significant effects?	Yes				
Discussion	<p>Key issues include the efficient use of land²⁴, whether there are potential contamination issues, the agricultural quality of land²⁵, and how waste issues will be managed.</p> <p>All of the options have the potential for a significant negative effect on this topic through the loss of greenfield and agricultural land; however, it should be noted that the site selection process has been designed to minimise the loss of both where possible. Option 4 is predicted to have a negative effect of greater significance compared to the other options as there will be lower growth on urban greenspace, which could result in a higher level of growth on greenfield sites and agricultural land at the edge of settlements. However, this is not likely to be of significance when considering the overall nature and significance of effects under this topic.</p> <p>Option 5 performs slightly better when compared to the other options as it directs more growth towards settlements around the Central Line and away from the best and most versatile Grade 2 agricultural land situated in the northern parts of the District.</p> <p>Option 2 proposes less development towards North Weald Bassett so there is likely to be an increased level of growth towards settlements in the south of the District as well as increased level of development in the north compared to Option 1. However, this is unlikely to be of significance in terms of differentiating between options 1 and 2.</p> <p>Option 3 proposes a higher level of growth in North Weald Bassett. If this additional growth is directed to the north of the town this could result in the loss of best and most versatile agricultural land. However, if the airfield is used to accommodate this development then the loss of this would be avoided.</p> <p>All of the options will result in the loss of some Green Belt land. It is predicted that Option 4 is more likely to result in a greater loss of Green Belt land compared to the other options as less growth at urban greenspaces will result in more development on the edge of settlements within the Green Belt. Option 5 is more likely to result in the loss of Green Belt land in the south of the District, which provides gaps that are important in terms of maintaining separation between settlements. Option 5 seeks to maximise the use of urban greenspace, particularly in Loughton, in order to avoid the loss of Green Belt land. It is assumed that options 2, 3 and 5 would result in the same level of urban greenspace development compared to Option 1.</p> <p>The Essex County Council Replacement Waste Local Plan (Pre-Submission Draft March 2016) does not identify any strategic waste site allocations within the District. However, it does identify an area of search around Langston Road/Oakwood Hill, Loughton as an area for potential waste management development. The loss of urban greenspace under Option 4 may mean there is more pressure for development on the edge of settlements within the Green Belt, particularly around Loughton where there are the most urban greenspace sites available. This could result in development within or near the area of search identified above; however,</p>				

²⁴ 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.

²⁵ Grade 2 Agricultural Land is the highest level of classification in the District according to available evidence. 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.

this is uncertain at this stage.

In conclusion: All of the options have the potential for a significant negative effect 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 the options is not known. All of the options have the potential for the loss of Green Belt land. The appraisal predicted that Option 4 is more likely to result in a greater loss of Green Belt land compared to the other options as there will be less growth on urban greenspaces and therefore a greater likelihood for development on the edge of settlements within the Green Belt.

Sustainability Topic: <u>Landscape</u>					
	Option 1 The preferred option	Option 2 Lower growth at North Weald Bassett	Option 3 Higher growth at North Weald Bassett	Option 4 Lower growth at urban greenspaces	Option 5 Higher growth along the Central Line
Rank	=	=	=	=	=
Significant effects?	?				
Discussion	<p>The sensitivity of the different Landscape Character Types and Areas to change within the District was considered through a Landscape Character Assessment published in 2010.</p> <p>Option 1 will result in development in some landscape areas of moderate as well as moderate to high sensitivity to change. Option 2 proposes less growth in North Weald Bassett, the area around the settlement is identified as having moderate sensitivity to change. The displacement of growth to other areas in the District could result in development in landscape areas that are more or less sensitive to change; however, this is not known at this stage. Conversely, Option 3 proposes a higher level of growth at North Weald Bassett. This would result in a higher level of growth in the North Weald (F5) Landscape Character Area, which is identified as being moderately sensitive to change. If development was taken from other areas that are identified as having moderate to high or high sensitivity to change then Option 3 could have a reduced negative effect compared to other options. However, at this stage this is not known.</p> <p>Option 4 proposes lower growth on urban greenspaces which could result in a higher level of growth on the edge of settlements. Loughton contains the largest number of urban greenspace sites and a reduction in the level of growth on these sites could mean that there is greater pressure for development on the edge of Loughton to the east and south east. This includes a landscape area that is identified as having moderate to high sensitivity to change (B4 Ramney Marsh). However, this is unlikely given existing constraints such as the flood plain and the SSSI to the east of Loughton. It is also assumed that no development would occur to the west as the Epping Forest SAC and SSSI runs along the western boundary of the settlement.</p> <p>Option 5 proposes a higher level of growth in and around the settlements close to the Central Line. Depending on the level of growth and location of sites, this could result in development in some areas of low to moderate and/ or moderate to high sensitivity to change. It could also result in less development in sensitive landscape areas away from the Central Line; however, this is uncertain at this stage.</p> <p>In conclusion: All of the options have the potential for a negative effect on the landscape; however, mitigation could help to reduce the significance of the effect (e.g. design and layout of development as well as the precise location of development). 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>				

Sustainability Topic: <u>Transport</u>					
	Option 1 The preferred option	Option 2 Lower growth at North Weald Bassett	Option 3 Higher growth at North Weald Bassett	Option 4 Lower growth at urban greenspaces	Option 5 Higher growth along the Central Line
Rank	=	=	=	=	=
Significant effects?	?				
Discussion	<p>An initial analysis of traffic growth across the District has shown that, even without development in the future, parts of the highway network will be operating over-capacity, in some cases by 2026 and in other cases by 2036. Whilst some junctions could be improved most physically cannot be improved or would have environmental consequences if they were. For example, traffic congestion and delays that occur on the routes south of Epping could only be resolved by using land which forms part of Epping Forest.</p> <p>While all of the options propose the same overall level of housing growth, there are variations as to how this growth is distributed across the District. It is predicted that all of the options have the potential for a negative effect on this topic as a result of increased traffic; however, the significance of this effect is uncertain at this stage.</p> <p>It is important to note that all of the options propose the same level of development on the fringes of Harlow. Harlow itself provides a good opportunity to focus development in a sustainable location, but also to use that critical mass of new development to deliver significant improvements to the transport network. The Council has been working with neighbouring planning authorities, Essex and Hertfordshire County Councils and Highways England to identify the necessary infrastructure to support new growth in this location. A draft Memorandum of Understanding has been prepared, which identifies a number of new infrastructure interventions that will be necessary. The most notable of these is a proposed new motorway junction on the M11 (Junction 7A).</p> <p>Option 1 involves a dispersed approach to proposing growth across all the main settlements. It proposes growth in the District. It proposes growth in the south of the District around the Central Line, utilising areas of urban open space and minimising use of Green Belt land where possible. While it could be predicted that this would result in a higher level of traffic in an area already experiencing congestion, it could also be said that housing will be located in an area with excellent access to the rail network and services/facilities, which would help to reduce the use of the private vehicle and therefore traffic. The same could also be said for Option 5 as it proposes reduced development in areas away from the Central Line; therefore, directing more growth towards the south of the District. There is also the potential to exacerbate capacity issues on the Central Line outside of the District. The Council's own analysis for the Draft IDP and advice from Transport for London (TfL) suggest that there is sufficient capacity on the Central Line within the District. Epping Forest District Council are working with TfL as well as Redbridge Borough and Waltham Forest Borough Councils to consider and understand the effects of growth further down the Central Line.</p> <p>Option 2 proposes less development at North Weald Bassett, so it would be likely to have less impacts on the local highway network within the town and on the junction of the B181 with the A414. It is recognised that the town has limited public transport accessibility and residents are reliant on other settlements for access to key services. Option 2 could allow for development to be directed towards other areas in the District with better accessibility to public transport and services; conversely, development could also be delivered in areas with poorer access depending on its location. This option would also be less likely to help improve existing sustainability issues through associated improvements to public transport infrastructure and services/facilities as a result of housing growth.</p> <p>Option 3 proposes more development at North Weald Bassett, so would be more likely to have impacts on the local highway network within the town and on the junction of the B181 with the</p>				

A414. As stated above, it is recognised that the town has limited public transport accessibility and residents are reliant on other settlements for access to key services. This option therefore provides a better opportunity compared to other options, in particular Option 2, to improve existing sustainability issues through associated improvements to public transport infrastructure and services/facilities as a result of housing growth. As for Option 2, this option could result in growth being displaced from areas with better or poorer access to public transport and facilities/services but this is uncertain at this stage.

Option 4 proposes less growth within urban greenspaces and it is not clear at this stage exactly where this growth would be located so it is difficult to predict the nature and significance of effects and highlight differences compared to other options. The loss of urban greenspace may mean there is more pressure for development on the edge of settlements within the Green Belt, particularly around Loughton where there are the most urban greenspace sites available. If this is the case, then it is considered that there will not be significant differences in terms of the nature and significance of effects against this topic compared to Option 1.

In conclusion: While all of the options propose the same overall level of housing growth, there are variations as to how this growth is distributed across the District. It is predicted that all of the options have the potential for a negative effect on this topic as a result of increased traffic; however, the significance of this effect is uncertain at this stage. There are existing congestion issues in the south of the District and focusing development there could exacerbate this. However, the settlements in the south of the District have good access to the Underground network and services/facilities. Housing within and around these settlements accompanied with associated improvements to public transport infrastructure could potentially help to reduce use of the private vehicle and therefore traffic by encouraging the use of other, more sustainable modes of transport. At this stage it is considered that there are no significant differences between the options in terms of transport.

Sustainability Topic: <u>Water</u>					
	Option 1 The preferred option	Option 2 Lower growth at North Weald Bassett	Option 2 Higher growth at North Weald Bassett	Option 4 Lower growth at urban greenspaces	Option 5 Higher growth along the Central Line
Rank	=	=	=	=	=
Significant effects?	No				
Discussion	<p>Water is a key issue given water scarcity in the wider area, 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 that adequate water supply and waste water infrastructure are provided for development.</p> <p>All of the options propose the same level of development and there is no evidence to indicate that there would be any significant differences between the options in terms of water resources or waste water treatment capacity given the variations in relation to distribution.</p> <p>In conclusion: There are no significant differences between the options in terms of water resources or water quality.</p>				

Summary findings and conclusions

Topic	Categorisation and rank				
	Option 1 The preferred option	Option 2 Lower growth at North Weald Bassett	Option 2 Higher growth at North Weald Bassett	Option 4 Lower growth at urban greenspaces	Option 5 Higher growth along the Central Line
Air quality	=	=	=	=	=
Biodiversity and green infrastructure	★1	★1	★1	★1	5
Climate change (mitigation and adaptation)	★1	★1	★1	★1	5
Community and wellbeing	=	=	=	=	=
Economy and employment	=	=	=	=	=
Historic environment	=	=	=	=	=
Housing	=	=	=	=	=
Land and waste	2	3	3	5	★1
Landscape	=	=	=	=	=
Transport	=	=	=	=	=
Water	=	=	=	=	=

Summary findings and conclusions

Option 1	Option 2	Option 2	Option 4	Option 5
The preferred option	Lower growth at North Weald Bassett	Higher growth at North Weald Bassett	Lower growth at urban greenspaces	Higher growth along the Central Line

All of the options are found to have the potential for a significant long-term positive effect in relation to communities and wellbeing as well as housing. The appraisal also finds all to have the potential for a significant negative effect in terms loss of agricultural and greenfield land.

Option 1 involves a distribution as per the preferred strategy to emerge from the site selection work (see Section 6.3 of this report). This is a tailored approach that performs broadly well in terms of a range of sustainability objectives. It seeks to ensure that growth is well distributed between settlements, and also makes efficient use of land / minimises the loss of Green Belt land. However, it is also associated with certain draw-backs. The 'pros and cons' of the preferred approach are highlighted through the discussion of the alternatives presented below.

Option 2 proposes a lower level of growth at North Weald Bassett. It would result in a higher level of growth in other areas of the District; however, the precise level of this displaced growth and its location is not known at this stage. This option -

- is likely to have a reduced positive effect for the communities in and around North Weald Bassett compared to the other options given the lower level of housing proposed and associated improvements in terms of access to public transport, employment and services/facilities;
- offers opportunities to direct displaced growth towards areas that could potentially have better access to public transport, employment and services/facilities but this would not help to address existing sustainability issues or maximise opportunities for improvement within North Weald Bassett.

Option 3 proposes a higher level of growth at North Weald Bassett. It would result in a lower level of growth in other areas of the District; however, the level of growth and the precise areas it would be diverted from are not known at this stage. This option -

- is likely to have an enhanced positive effect compared to other options for communities in North Weald Bassett as a greater level of housing development is proposed; and
- is more likely to take advantage of and maximise identified opportunities as well as better address existing issues for the town in relation to poor access to public transport and services/ facilities.

Option 4 proposes less development on greenspaces within the urban areas. This option -

- could result in a need to divert growth to locations on the edge of Loughton (in order to avoid unreasonably low growth at the town) that are sensitive in terms of flood risk and/or biodiversity (e.g. given the River Roding) and/or landscape (e.g. given the important Loughton / Theydon Bois gap);
- performs poorly compared to the other options in terms of the efficient use of land as there will be lower growth within the urban areas, which would result in a higher level of growth and therefore loss of greenfield sites and agricultural land on the edge of settlements;
- could help to ensure good access to open/green space; however, this is uncertain given evidence to suggest that the open spaces in question are under used, and that sufficient capacity would remain.

Option 5 proposes a higher level of growth in and around the settlements in the south of the District that are served by the Central Line. This option -

- is less likely to take advantage of and maximise opportunities for development in areas and settlements away from the Central Line, e.g. at Chipping Ongar and Waltham Abbey, where there are particular growth related opportunities;
- directs growth to areas with good access to public transport, employment and services/facilities;
- performs poorly compared to other options against biodiversity as it proposes a higher level of growth in close proximity to sensitive and designated nature conservation sites, leading to the prediction of a 'significant negative effect';
- directs growth away from the best and most versatile Grade 2 agricultural land situated in the northern areas of the District; and
- is more likely to result in the loss of Green Belt land in the south of the District, which provides gaps that are important in terms of maintaining separation between settlements.